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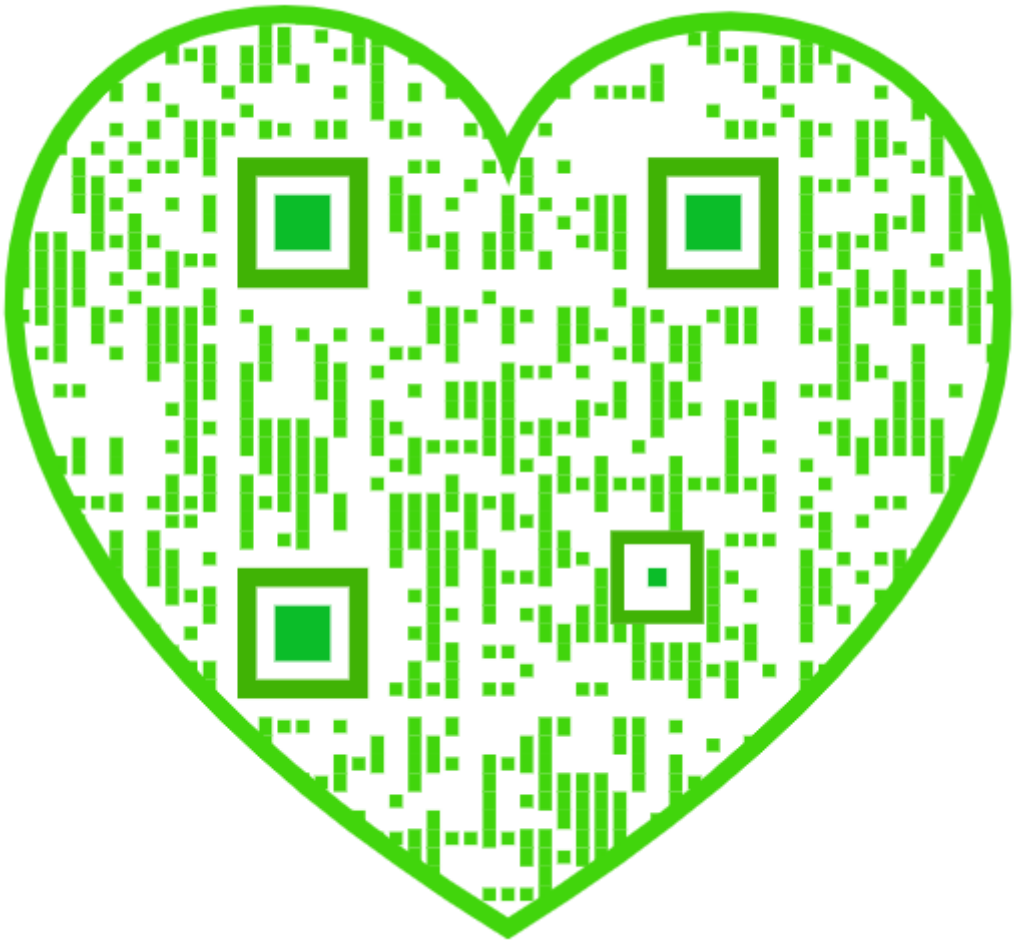

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AN INQUIRY

INTO

THE PRINCIPLES OF BEAUTY

IN

GRECIAN ARCHITECTURE;

WITH

AN HISTORICAL VIEW OF THE RISE AND PROGRESS OF THE ART IN GREECE.

BY

GEORGE, EARL OF ABERDEEN, K.T.,

ETC.

Aberdeen, George Hamilton-Gordon, 4th Earl of

EXTRACTED FROM WILKINS'S TRANSLATION OF VITRUVIUS, TO WHICH THIS WORK IS AN INTRODUCTION.

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PRINCIPLES OF BEAUTY

IN

GRECIAN ARCHITECTURE.

ADVERTISEMENT.

THIRTY-FIVE years ago I purchased of the late William Wilkins, Esq., the copyright and copies of his translation of the four books of Vitruvius's Civil Architecture, to which is attached an Inquiry into the Principles of Beauty in Grecian Architecture, written for this work by the Right Hon. the Earl of Aberdeen. This introduction was printed and published separately through another publisher, and although this separate publication was at that time injurious to my interest, yet I did not complain, knowing the great value of the Inquiry to the public as a work on art, and its issue being made in a convenient form for the use of those admiring classic art.

The publication of this separate inquiry being seven shillings, much too high in price for purchase by the numerous students desirous of the study of it, I have been induced to add it to my series in a shilling

volume, first apprising the noble author of my intention of doing so, and asking for any suggestion his Lordship might be disposed to make; but receiving no reply, it is presumed that none can be made; and as I have had it carefully read in its passing through the press, it is anticipated that it will be found correct, and that it will moreover, from its very convenient size and price, be well received by all admirers of Grecian Architecture.

JOHN WEALE.

No. 59, High Holborn.

PRINCIPLES OF BEAUTY

IN

GRECIAN ARCHITECTURE.

All nations, in the most advanced state of civilisation, have been unanimous in their admiration of Grecian architecture; and, indeed, such admiration appears to have been generally considered as inseparable from the existence of real taste and knowledge in the art. An endeavour, therefore, to trace the causes of this unanimity, and to ascertain the principles on which it is founded, may form the subject of an interesting inquiry, more especially as it is in some degree doubtful whether the sentiment be excited in us by any qualities or properties peculiar to the style itself, operating previously to the intervention of the judgment, or whether it be not the effect of intellectual association only. By intellectual association I mean the union of such ideas as the imagination has originally presented to the mind, and of such as the understanding has finally combined, after having compared them with each other. This species of association is, consequently, never to be confounded with that which may be called sensible association, by which ideas, in

childhood always, and often at a more advanced age, are admitted without scrutiny, and combined without reflection. If, then, admiration of Grecian architecture result from intellectual association, it will be found to exist only among men of knowledge; and its just proportion will be determined by those whose taste is the most cultivated, and whose science is the most extensive: but if there be some intrinsic charm, some peculiar grace, which is necessarily acknowledged and felt by all mankind; we then must look for some more general principle, which will accommodate itself to this more general feeling.

It seems impossible that we should contemplate any remains of Grecian taste and science, of whatever description they may be, without at the same time adverting to other monuments of other arts, and connecting them in the mind with those which are immediately before us. In vain would we believe that we admire them as if they stood insulated and alone, while association is softening every defect and enhancing every beauty—while memory is retracing the most affecting scenes—or while fancy is grouping the most interesting objects. We can scarcely deny, then, that the pleasure which is derived from surveying the ancient models of Grecian architecture is incalculably heightened by ideas connected with learning, with science, and with art; accompanied, as they ever must be, by all the nameless charms which imagination combines with the history of the Greeks, and which it throws over all their productions. It is probable, nevertheless, that their buildings possess certain qualities

which affect us independently of all these associations, and which, even without them, fail not to produce in us sentiments of admiration and feelings of delight.

Before I proceed, however, to inquire into the causes of this attraction, with a view more particularly to trace the real sources of beauty in architecture, it may be convenient here to mention the existence of other striking and remarkable qualities partaking of the character of sublimity, which are calculated to make the strongest impressions on the minds of all men, and which are unconnected, not only with the associations referred to, but with all those attributes which have been supposed to constitute architectural beauty. Such impressions are not the result of any assignable peculiarities of form or disposition of parts, but will be found to arise from ideas, often perhaps vague and indistinct, which these qualities suggest of the superior power and energy requisite for their production. Indeed, as I think in all cases of the moral sublime, it may be justly stated that whatever tends to create ideas of superior energy and force, producing thereby an elevation and expansion of mind, is its real and efficient cause; I am persuaded, also, that in visible objects all such qualities as are capable of exciting similar sensations must be considered as the only true source of sublimity. Of these qualities in monuments of architecture, magnitude is the principal, and perhaps single one, which is indispensable; but its effect may be much increased by the height of the building, and by the solidity of the materials which compose its mass. Height, it may be said, is only extension in a

particular direction; but it produces increased sublimity in architecture, because it most forcibly suggests ideas of great effort, and of great power, as well as of difficulty overcome. The solidity of the materials, also, confirms and strengthens the first impressions of admiration suggested by magnitude and height; and, in addition to the sense of original difficulty overcome, gives an appearance of eternal stability to the building. Hence we cannot fail to be struck with the grandeur of the Egyptian pyramids, from their solidity and their vast magnitude, although the pyramidal form is not in itself peculiarly impressive, as is proved by the insignificant appearance of that of Caius Cestius at Rome, and of all others of small dimensions. Thus, too, the great Tartarian wall, from its extent, must unquestionably affect the beholder in the same manner; yet it is obvious that the forms and proportions of any part of it which can easily be comprehended by the eye, are not such as are calculated to excite even a considerable degree of admiration. But, when to the actual knowledge of its prodigious extent, we associate the ideas of the energy, the power, and the perseverance necessary for the execution of this extraordinary work, the effect cannot be doubtful.

It is not, however, only in uniform and simple structures that the qualities which I have mentioned are productive of the sublime in architecture. A great profusion of ornament is far from being incompatible with a similar result. A Gothic cathedral, with its lofty and slender proportions, and endless variety of parts — or a Grecian edifice with all its decorated

regularity and order, will produce similar sensations of wonder and admiration. Thus, although no objects can differ more both in their general character and in their details than the great pyramid, York minster, and St. Peter's church; yet, as each possesses the efficient cause of grandeur, each excites those feelings which partake of sublimity.

Mr. Burke observes, that uniformity and succession of parts, as the great causes of the artificial infinite, tend mainly in architecture to produce sublimity; and thinks, that the effect of a colonnade may be chosen with propriety to exemplify the truth of his position.* Doubtless the portico at Palmyra, although greatly defective in style and execution, but which was 2000 feet in circuit; or the peristyle of the great temple at Selinus, which was 60 feet in height, must have been eminently grand and impressive; but it is not true that the mere collocation of parts, without any reference to the magnitude of their dimensions, can ever prove a source of the sublime; and this, indeed, is admitted by Mr. Burke himself. In these instances, as in all others, its true origin will be found in that quality which most powerfully excites ideas of the superior force and energy necessary for the accomplishment of the work. The truth is, however, that perhaps we can scarcely, with strict propriety, speak of the sublime in architecture; and in fact it is observable, that the authors who make use of this language, as if conscious that somewhat more was implied by the expression than could be perfectly justified, appear on all

* Subl. and Beaut. part ii. sect. 9.

occasions disposed involuntarily to substitute the terms of grand, majestic, or imposing. In an art, the objects of which depend so much on scientific calculation, and on the skilful application of mechanic power, it may be difficult in the result to excite those sensations which are the most intimately connected with real sublimity. If, indeed, the observation of an eloquent writer be just, that a fine monument of architecture is the only work of art which produces in the beholder an effect similar to the wonders of nature,* it is possible that this art, which, unlike painting and sculpture, is not merely imitative, may sometimes be characterised by the same species of original grandeur which distinguishes the immediate works of the creation, and may inspire sensations of the sublime, in some degree analogous to those which are produced by natural objects.

It has already been observed that the architecture of the Greeks, independently of the numerous associations connected with the memory of its authors, may probably possess a certain character which is calculated to produce in us a sense of pleasure and admiration, and which may therefore be supposed to constitute beauty. In speculating, however, on the nature of beauty, too much appears to have been attempted. Dissatisfied with looking merely to peculiar results arising from certain combinations of qualities, or fatigued, perhaps, by the minuteness of details, we have gone on abstracting, in the hope of discovering some general principles, to which every species of it may be referred, and some comprehensive rules,

* Madame de Staël, Corinne, t. i. p. 162.

according to which every example of it may be classed; although, in reality, we are only generalising effects, while we fancy that we are investigating efficient causes; and although it is highly probable that these hidden properties will continue to elude the test of the strictest analysis. It was this desire of generalising which led Mr. Burke, and those who have followed him, to adopt notions contrary to the plainest dictates of reason and philosophy. It is not necessary at present to enter into a discussion of the question how far the beauty we perceive may be said to exist in the mind of the beholder, and not in the object itself: but, admitting that certain definite properties of objects are calculated to excite corresponding sensations in the mind, it must still be evident that to the art now under consideration the principles laid down by this great man either are not applicable at all, or they are so in a very slight degree; for it is not to their truth and accuracy in a limited sense, but to their universal and exclusive adoption that we ought to object. According to the theory of Mr. Burke,* the essential requisites for the formation of the beautiful are, "*first*, to be comparatively small; *secondly*, to be smooth; *thirdly*, to have a variety in the direction of the parts; but, *fourthly*, to have those parts not angular, but melted, as it were, into each other; *fifthly*, to be of a delicate frame, without any remarkable appearance of strength; *sixthly*, to have its colours clear and bright, but not very strong and glaring; *seventhly*, or if it should have any glaring colour, to have it diversi-

* Subl. and Beaut. part iii. sect. 18.

fied with others." Now it is impossible to deny that all or most of these characteristics are possessed by a great variety of objects which every man of refined and cultivated taste must concur in pronouncing to be beautiful. Yet the enumeration is, after all, somewhat arbitrary, and perhaps it would not be difficult to vary or enlarge it by the addition of other peculiarities which might be supported with equal plausibility. But our attention at present is directed to the statement, so far only as it may be considered applicable to architecture; and I think a very little reflection will suffice to show that these qualities, so far from being essential to architectural beauty, are really in some measure of an opposite description. Let us take, as an example, the most beautiful perhaps of the buildings of antiquity, raised and adorned by the most celebrated artists, and the whole finished under the inspection of the most accomplished statesman of Greece, — the temple of the Parthenon, at Athens. We shall find that, although it may be less than some few structures of the same description, it is impossible that it should ever, with propriety, be characterised as comparatively small,—that it possesses no delicacy of frame, but that the appearance of strength is such as becomes the style in which it is built, and plainly denotes the permanence of its duration, — that the direction of the parts is necessarily uniform, and the greater proportion of these sharp and angular,— that the colour, although now somewhat softened by the effects of time and weather, was formerly the most bright and glaring which it is possible to imagine, viz.,

the dazzling whiteness of the marble of Pentelicus, no otherwise diversified than by the lights and shadows produced by the various masses which composed the whole edifice.

Smoothness in this as in other buildings is indeed pleasing, but from a cause different from that which is assigned by Mr. Burke in his Essay on the Sublime and Beautiful; for the pleasure we receive in surveying the polished exterior of a building arises principally from the ideas which it gives us of the care and skill with which the work has been finished. The smoothness which is observable in any finely-laboured structure may certainly impart an agreeable sensation; but it is different from that which is experienced in looking at the blue expanse of the heavens softly laid on the smooth surface of a lake:—It is yet more different from that which is felt when the eye regards the smooth and delicate skin of a beautiful female. When we admire smoothness in a building, we admire it as an effect, which we naturally associate with the causes that have produced it. In this instance the secondary quality, considered separately and in itself, produces no sentiment of pleasure; it is agreeable only as it is the result of skill and art. This is evident from our equal admiration of those parts of architecture which are covered with a profusion of minute and elaborate ornament, the general effect of which is an appearance only of roughness; and whose forms, when viewed in detail, being sharp and angular, cannot impart an agreeable sensation by any organic affection of the eye itself.

It must be evident, I think, that the properties and qualities considered by Mr. Burke as essential to every species of beauty, have been principally, if not entirely, collected from the female form; and the truth is, that this system offers precisely the same solution of the problem, as that which is proposed by the Sophist and refuted by Socrates;* with this difference only, that the distinguishing characteristics of the object in question are indicated, instead of the object itself. But although these qualities are connected in the female form with all that is most lovely, yet the real source of their attraction even here appears to have been in a great measure overlooked; for this, I apprehend, does not so much consist in the particular shape, colour, or surface of the parts themselves, as in the sexual affections and sympathies implanted in our nature. Had it, however, been practicable, by classing the charms of the most beautiful work of the creation, to invest in these charms every other object, the choice would have been judicious; we might even have desired the success of such an enterprise; and yet, according to the present order of things, it would seem a little whimsical to maintain that feminine graces, feminine delicacy, and feminine proportions, ought to constitute beauty in a tree or in a house. The rules which Mr. Burke has laid down may be found to be just when applied to the female form, but to extend them to every form in nature seems little less unreasonable than if we were to assert that every species of composition ought to be framed according to the decrees which the critics

* Plat. Hipp. major, ed. Serran, t. iii. p. 287.

have promulgated for the perfection of the drama,—decrees, which are in themselves sufficiently tyrannical, and which, unlike the rules of Mr. Burke, are formed from the analysis of a most imperfect model. Indeed, my friend Mr. Price, who is the zealous advocate of these principles, and who, in placing them in many new and striking points of view, has enforced and illustrated them with the utmost ingenuity; has felt himself, nevertheless, under the necessity of admitting that the theory is not so fully applicable to works of architecture as to other objects; but must be received with certain exceptions and modifications, which arise from the nature of the art itself.* This admission, although to be expected from the candour of my friend, I think may be considered as an additional proof of the inadequacy of Mr. Burke's system: for his rules are laid down without any restriction, and are stated to be capable of universal application. Mr. Burke himself has not thought it necessary to make these limitations with respect to architecture; and he has, in fact, very frequently illustrated his argument by a reference to this art. But even if they had been so limited by him, it could scarcely have contributed to raise our notions of the perfection of a system, in which, professing to give a philosophical explanation of the general principles, and to establish a standard of beauty, it had been found indispensable materially to restrict these principles in their application to an art, the monuments of which, in their external appearance at least, must have been constructed mainly with a view to this

* Essay on Archit. p. 234.

very quality. Mr. Price, however, contends that Mr. Burke's principles, due allowance being made for the peculiar nature of the art, are still applicable to works of architecture; and he has judiciously chosen the circular temple of the Sibyl at Tivoli as an example, where even Mr. Burke's doctrine of flowing lines, and his unqualified proscription of angles, are to a certain degree supported by the effect of the building.* I have no wish to deny the general beauty of this temple, or the charm of its appearance, especially in the situation in which it is placed; whatever may be the corrupt taste of some of its ornamental details. It may be observed, however, that circular temples appear always to have been rare, more particularly among the Greeks, which, if they really possessed the most essential properties of beauty, must be considered as extraordinary neglect in a people by whom it was so well understood. I will only state that I have already referred to a building, avowedly the most beautiful of all antiquity, and have shown that scarcely in a single particular does it accord with the supposed standard. The examples, then, of the Parthenon and of the temple of the Sibyl afford us an additional proof of the vagueness and uncertainty of these rules, of which, indeed, Mr. Burke himself seems to have been in some degree aware; for he has described a certain class of buildings, which, as according to his theory he thinks they cannot justly claim the appellation either of grand or of beautiful, he proposes to call "the fine or specious."†

* Essay on Archit. p. 238, and note.

† Subl. and Beaut. part iii. sect. 23.

These terms may, perhaps, be convenient and useful in colloquial language; but as employed by this distinguished person, are neither accurate nor philosophical. The truth is, that Mr. Burke has attempted more than it was possible for him to perform. Had he been contented with indicating the peculiar properties which characterise a vast variety of beautiful objects, we could not have withheld our assent from the justness and accuracy of his propositions; while our admiration was excited by the manner in which they were enforced. But the more the subject is investigated, the more fully satisfied we shall be that no selection of secondary causes will ever be found capable of comprising the whole range of beauty.

Not satisfied with having triumphantly refuted the notions of those theorists who maintained that fitness and proportion are the sole causes of beauty, Mr. Burke has gone so far as to deny that these qualities are in any way necessary to its existence. This opinion, as far as it regards architecture, is erroneous:—for, although there undeniably exists a real distinction between the ideas of beauty, and of fitness to an end, yet in a scientific art, of which utility is also a principal object, the full perception of excellence requires some effort of the understanding, and depends, in great measure, on our finding that the means employed are justly calculated for the attainment of what we know to have been the ends proposed: here, therefore, proportion and fitness are indispensable to the sensation of beauty. Its perfection in architecture, therefore, may perhaps be said to arise from the symmetrical

proportion of the whole building, and from the fitness and propriety of the ornamental parts. This will sufficiently accord with the definition of the beautiful as given by Aristotle, which consists, according to him, in magnitude and order: the first, being a term purely relative, is made to comprise the whole extent of that scale which the eye is able to embrace at one view.*

The truth is, however, that general rules for beauty, in this or in any other practical art, cannot be fixed from abstract conclusions; but must be deduced from experience, and from the continued observation of those qualities which have been found universally to please; this being, after all, the only test respecting which all are agreed. It was by an adherence to this principle that the Greeks seem to have regulated their practice. Hence, the remarkable uniformity of all their buildings, in which, indeed, the variations are so slight as scarcely, on a first view, to satisfy the natural desire of novelty or justly to merit the praise of invention. A quadrilateral form, adorned with exterior columns, the roof comparatively low, and composed for the most part of unbroken lines, with the frieze and pediment enriched by the application of sculpture in different degrees of magnificence and profusion, constituted almost invariably the figure of their most splendid edifices. But, although generally similar in plan, distinct varieties are observable in Grecian structures; each peculiar and consistent in all its respective parts. The character of massive and

* τὸ γὰρ καλὸν ἐν μεγέθει καὶ τάξει ἐστί.
Poet. p. ii. s. 4.

imposing grandeur in the Doric style,—of adorned yet simple majesty in the Ionic,—and of festive sumptuousness in the Corinthian, is preserved throughout the minutest details of these orders. If any one should deny the paramount influence of association, or that a sense of fitness and propriety in architecture is a source of pleasure, he has only to bring together some of the more prominent parts of these different modes of building, in order to be convinced of the incongruity that would result from their union. This incongruity, although invariably revolting to the eye of taste, is, in fact, perhaps only apparent; for there is nothing in the nature of the members themselves which, when joined, should render them really unfit for the purposes of strength and utility; but from the long observation of a contrary practice, recommended by so many powerful associations, we have become impressed with this notion, which it is now impossible to eradicate. Having constantly witnessed the employment of columns and other ornaments, under similar circumstances of apparent fitness, we are shocked at any material deviation from established usage. And this forced union of different members, which have been long appropriated to the use of their respective orders, would appear almost as preposterous in our eyes, as the whimsical fancy of Hogarth, who, in inventing an order of architecture, composed the capitals of the columns by a grotesque assemblage of full-bottomed wigs and cocked hats. It may be observed in general, that few of those numerous changes of taste which an insatiable desire of novelty, or the

caprice of fashion, may have sanctioned for a time, have been ultimately successful; for these ephemeral productions, however warmly supported, have been found successively to vanish before the steady and permanent attractions of Grecian beauty; and we shall probably feel disposed to admit that the ornamental details of the standard models of antiquity, combined and modified by discretion and judgment, appear to offer a sufficient variety for the exercise of invention and genius in this province of the art.

Architectural ornament, if not really useful, ought, in its principal parts, to possess the semblance of utility; there should be a sufficient cause for its introduction, at least in appearance, although, perhaps, in truth none may exist; for decoration, which is incompatible with this essential quality of the art, can never be admissible. Columns undoubtedly form the chief feature in the ornamental parts of architecture; and perhaps the great source of their attraction may be found in the apparent fitness of their employment; for nothing can more fully accord with that principle, derived from the practice of the Greeks, which teaches us that whatever is useful in architecture should be rendered pleasing; and that what is beautiful should appear also to be necessary. Columns, however, are likewise eminently calculated, by the power of lights and shadows, to produce a species of intricacy, and a concealment of parts, which, although really indistinct, the imagination can with certainty fill up and supply to itself; and the variety of surface necessary for this effect, with the preservation at the same time of the

general harmony and proportions of the edifice, must always be considered as a primary object of the architect. It is the want of this sense of fitness and utility which cannot fail to create an unpleasant sensation in beholding that species of building which is commonly called a skreen, or a row of columns supporting nothing but their own entablature; because, however beautifully the parts may be executed, the mind remains ignorant of the destination, and dissatisfied with the propriety of the whole; which indeed can scarcely suggest any other idea than that of a ruin, or of some unfinished work. Hence also twisted columns and broken pediments, being so manifestly unsuitable to the purposes for which they were originally intended, become monstrous and unnatural.

Decoration, which is at once discovered to originate in an ostentatious desire of splendour, but which produces the effect only of tawdry and misplaced finery, must always be offensive. Without attempting to enumerate the various species of vicious decoration, we may instance as belonging to this description, the recesses, or rather the holes which we sometimes find laboriously constructed in walls, for no other purpose than that of containing columns; as well as the unmeaning projections which it is not uncommon to see formed by the application of a couple of columns, with their entablature, at intervals along the plain surface of a building by way of enrichment. I will only add here, that those "*slices of pilasters*," which, whether "*laced with rustic work*" or not, are so frequent in modern practice, are almost universally objectionable:

they are not only poor and insignificant in themselves as ornamental members of architecture, but are destructive of that simplicity and breadth of surface,—of that repose in which the eye delights, and which are so essential in works of magnitude and importance. The perfection of ornament, as taught by those examples which educated men have in all ages agreed to admire, and by which criterion alone it is to be estimated, is natural and consistent: it is fixed in that happy medium which alike avoids the poverty that is produced by the extreme of simplicity or baldness; and the confusion that arises from redundancy and caprice. If we seek for the manifestation of pure taste in the monuments that surround us, our search will but too often prove fruitless. We must turn our eyes towards those regions—

> Where, on the Egean shore, a city stands,
> Built nobly!

Here,—it has been little understood, for it has been rarely felt; its country is Greece,—its throne, the Acropolis of Athens.

By a person writing on the subject of architecture, the name of Athens can scarcely be pronounced without emotion; and in the mind of one who has had the good fortune to examine at leisure its glorious remains, impressions are revived which time and distance can never obliterate. It is difficult to resist the desire of fondly dwelling on the description of monuments, to the beauty of which, although they have been long well known and accurately described, we feel that no language can do full justice. But as it is not the purpose

of this inquiry to give those practical or detailed instructions in the art, which may be so much better obtained from other sources; I will only observe in this place, what it is of consequence to keep in view, —because no descriptions or representations, however accurate, can give adequate notions of the effect of the originals,—that, notwithstanding the lapse of ages, the injuries of barbarism, and of fanatical violence, Athens still presents to the student the most faultless models of ornamental architecture; and is still, therefore, the best school for the acquisition of the highest attributes of his art.

It would appear, however, that this perfection of architectural beauty which rendered Athens the pride and ornament of all Greece, was in great measure confined to the various edifices erected for public purposes, and that individuals were forbidden by some acknowledged principle or prescriptive law, from making any ostentatious display of this kind; probably from an apprehension that it might prove incompatible with the apparent equality of the citizens of a democratic state. For Demosthenes thought it was a reasonable cause of accusation against Midias that he had built a house at Eleusis, by which all the others in the place were thrown into the shade.* He mentions too, on another occasion, that in the best times of Athens, while the public buildings and the temples were rendered so magnificent and so perfect as to leave nothing for posterity to add, the private dwellings were invariably simple and modest; and he assures us that the policy

* Demosth. in Mid. p. 628, ed. Wolfii.

of the state was so strictly observed in this respect, that even the residences of Aristides and Miltiades, and of the other illustrious citizens of that age, could not be distinguished from the houses of their neighbours.* He laments also, that, in his own time, private individuals built houses which rivalled the splendour of the public edifices; and that this magnificence was exhibited the more frequently, in proportion to the decay of the real power and prosperity of the republic. In like manner, too, the city habitations of the Romans, during the earlier periods of their history, rarely boasted of exterior architectural decoration. Julius Cæsar,† in the height of his power, obtained a decree of the senate, by which his house was adorned like the front of a temple, and received a fastigium or pediment; a species of distinction which had previously been reserved for the deities, but which soon became the customary mark of imperial dominion. In all common cases, however, such a display appears to have been prohibited; probably from the same causes of jealousy which operated at Athens.

It has been observed in a work replete with learning, ingenuity, and good sense, that as the ancient buildings remaining to our time are almost exclusively of a religious description, and which, having been situated in streets and squares, possess all the regularity of form desirable in city architecture; and, consequently, that the effect intended to be produced

* Demosth. Olynth. iii. pp. 38, 39—

καὶ σφόδρα ἐν τῷ τῆς πολιτείας ἤθει μένοντες. κ. τ. λ.

† Cic. Philipp. ii. 43.

is such only as may be compatible with their circumscribed and contracted position—it therefore becomes doubtful how far we can with propriety adopt them as our guides in the embellishment of rural scenery.* In all this there appears to be some mistake; for even in towns the temples were not only conspicuously placed on the most lofty and commanding eminences; and in Greek towns it is well known these are generally to be found; but many of the most beautiful were entirely removed from the habitations of men. The temple of Minerva to be seen on the Promontory of Sunium, that of Jupiter on Mount Panhellenius in Ægina, and of Apollo on Mount Cotylus in Arcadia, built by the most celebrated architect of Greece, and still standing in the depth of the same forest, and amidst the descendants of those oaks by which it was anciently surrounded, are a few among the numerous examples sufficient to attest the prevalence of the practice in the best ages of the art.

It has likewise been remarked,† that the villas and country-houses of the ancients were quite irregular in appearance, and adapted to local circumstances; and, therefore, had they still existed, would have furnished more just notions for the construction of our own mansions. This too, as far as we can learn, is erroneous. The enormous extent of the villa of the Emperor Hadrian, as well as of those of other princes, must undoubtedly have comprised every variety in form and situation; bearing, in fact, more resemblance

* Knight, Analyt. Inquir. part ii. ch. 2.
† *Idem.* part ii. sect. 38.

to cities than to individual dwellings: but there is no reason to imagine that the generality of their country residences were not in their exterior perfectly simple and regular. On the contrary, it is evident, from the minute descriptions of Vitruvius, that they consisted of bare walls, without any architectural ornament; everything of this kind being lavished on the interior fronts which looked towards the inclosed courts.* The villa of Pliny, which appears to have been of considerable extent and magnificence, and which is described with all the detail naturally to be expected from the partiality of a proprietor, presents none of this irregularity; or if, by any ingenuity of interpretation, something of the kind may be conjectured to have existed, it must have been purely accidental, and only produced in consequence of the necessary arrangement of the interior apartments, without the least reference to any general or preconceived design.† These buildings, therefore, cannot reasonably be supposed competent to afford us any correct views of picturesque effect in their composition with natural scenery; and the fact is, that the ancients never possessed any knowledge, or just perception of those qualities of external objects which are called picturesque: at least, in the Greek writers there are no descriptions to be met with of scenes viewed merely as pictures, or as delighting the imagination through the eye alone.

It is not intended by these remarks to prescribe the exclusive or servile imitation of any particular species

* Vitruv. lib. vi. c. 3. † Plin. Ep. lib. xi. 17.

of the remains of antiquity, but merely to recommend an adherence to those general principles of excellence on which the Greeks worked, and which are observable in all their undertakings in this art, whether erected for the purposes of ornament or of utility. Indeed, a spirit of imitation, not founded on such principles, would evince the frigid pedantry of the mechanic, rather than the exercise of a highly-cultivated and liberal profession; and any architect who should slavishly regulate his practice by a strict adherence to the models of antiquity, without fully consulting our peculiar habits and customs, and considering the nature of our climate, would probably meet with the neglect which he deserved. Still less can these observations have any tendency to depreciate a style of architecture, the principles of which have recently been laid down with singular feeling and accuracy of taste;*—a style which aims chiefly at picturesque effect, which seeks to harmonise and connect the building with the landscape around it, and in which the eye of a painter is, perhaps, not less indispensable than the science of the architect;—which is recommended not only by the intricacy and variety of its parts, but, if the expression may be permitted, by an union with the vegetable world, arising either from the skilful grouping of trees and shrubs, the luxuriant growth of creeping plants, or the blended tints of mosses, lichens, and other parasitic vegetation. To a style founded on these principles, it is evident that all precepts derived

* Price, "Essay on Architecture and Buildings as connected with Scenery."

from the simple and regular structures of Greece must be perfectly inapplicable.

It appears somewhat extraordinary, and is certainly to be lamented, that the Greeks, who carried the practice of so many sciences and arts to a degree of perfection which has since been unattainable, should have been so little solicitous to examine the causes of their rise amongst them, or with any care to trace their progress. Contented with the idle fables handed down from early times, and repeated with additions and embellishments acquired from the imagination or garrulity of succeeding narrators, their real knowledge of the origin of those objects which excited their pride and admiration, appears to have been vague and unsatisfactory. Even the gradual changes of their language, until a comparatively late period, occupied but little of their attention : and their national history itself, in its early ages, if we except, perhaps, the first book of Thucydides, received no illustration from the exertions of rational criticism and philosophical inquiry.

We may safely conclude, that the history of their architecture was left pretty much in the same state ; for, although no Greek writer on this subject has been preserved to our time, it is probable that their compositions, in addition to the tales generally propagated, were confined chiefly to practical instructions, or scientific refinements. Vitruvius not only professes to follow the steps of the Greeks in treating of his art, but all the authors whom he describes as the sources from which he derived his skill and know-

ledge, are selected from among that nation: indeed, it would be difficult to exceed the terms of admiration in which he speaks of their ornamental architecture, and of the principles on which it was founded.* The work, therefore, of the Roman may furnish a just criterion of their labours. This treatise, full of varied learning, remarkable for ingenuity, science, and acuteness, will not, however, afford any succinct view of the progress of architecture. A multitude of uncertain traditions are collected and detailed without being submitted to any test by which their fallacy may be detected: we are bewildered by the opposition of opinions and statements, equally positive and contradictory. But while we are careful not to pay to these authorities the respect due to historical truth, they ought, in an inquiry into this subject, by no means to be cast aside; they form, such as it is, the chief body of the information we possess; and they become doubly valuable when their internal probability is corroborated by illustrations incidentally afforded by contemporary writers, or by the known peculiarities of ancient monuments.

Vitruvius, although the age in which he flourished is a subject of dispute, appears to have lived about the reign of Augustus. His reputation, early established, is so far from having suffered by the lapse of time, that the admiration of posterity has rendered his name almost synonymous with excellence in his art. His own professions teach us to expect that his leading principles and precepts would be conformable

* Vitruv. lib. iv. c. 2.

to the practice of the Greeks; and, although the great masters of the art, since the period of its revival in Italy, probably from their ignorance of the Grecian models still existing, appear never to have studied him with such an object in view; yet the result of an exact and minute inquiry has fully realised this expectation.*

Vitruvius brought to the composition of his work the possession of much of the learning of that period; so much, indeed, as probably to embrace the extensive range of acquirements which he has himself laid down as necessary for the architect. To this he added a mind replete with notions in a high degree fanciful and visionary, and influenced by a strong bias to metaphysical distinction and refinement. Hence arose his laboured dissertations on the unintelligible connection between architecture and music, and the institution of that scale of harmonic proportions which has exercised the ingenuity of the learned to so little purpose, down to the present day; and which has led one of the most able of his commentators gravely to state, that he considered the deficiency of musical knowledge as the great cause of the inferiority of modern architecture.† Hence, too, arose the perception of an analogy which Vitruvius supposed to exist between the members of architecture and those of the human frame; a notion which, notwithstanding its absurd and fantastical nature, he has pursued to a

* Wilkins's translation of Vitruvius. Notes and explanation of the plates.

† Galiani, Vitruv. lib. ii. c. 1, not.

great extent. It was this imaginary resemblance which induced one of the greatest artists of modern times still further to declare, that even a knowledge of anatomy was so indispensable to an architect, that without it he must necessarily be ignorant of his profession.* How this knowledge, which he certainly possessed in a high degree, influenced his own practice as an architect, is not very apparent; but by an affected and ostentatious display of anatomical science as a sculptor, he has much detracted from the beauty and grandeur of some of his most admirable works. But these are dreams; or, at best, speculations of the most groundless and fallacious description.

In presenting a view of the progress of architecture among the Greeks, it is not my intention to dwell on the history of its origin, or to speculate at length on the probable means resorted to by a barbarous people in order to protect themselves from the inclemency of the weather. It must be evident, that among all nations an imperious necessity has been the parent of their first endeavours, and that whatever mode they may have adopted, must have been entirely determined by the nature of the materials of which they were in possession. It is probable that in their subsequent advances in the art these early attempts were not wholly forgotten, and that something of their original character was insensibly imparted to all the improvements of succeeding ages. Thus, we find the

* Duppa's Life of Michael Angelo, Lett. xix. "E però è cosa certa, che le membra dell' architettura dipendono dalle membra dell' uomo. Chi non è stato, o non è buon maestro di figure, e massime di notomia, non se ne puo intendere."

dark and ponderous buildings of the Egyptians resembling, in some degree, the rocky caverns to which, in a country destitute of wood, their troglodite ancestors had recourse.* The ornamental architecture of Greece, in its most essential parts, bore a striking testimony to the early use of that timber with which the country abounded. In India we discover the primitive employment of reeds and bamboo, in the lofty and slender buildings of later times; and in China there is scarcely an edifice, the roof of which is not constructed in imitation of the moveable tents of their Tartarian forefathers.

It has been observed that want is the mother of the inferior arts, but ease of the finer; and the principle of this observation may be considered as applicable to the varying state of Grecian architecture during the different periods of its history: for this art, from the date of its invention, must have experienced those gradations in its progress to perfection, to which all others are necessarily subject; and however this progress may have been retarded or facilitated by the intervention of temporary and accidental causes, we shall not fail to perceive the successive changes from rudeness to simplicity, from grandeur to magnificence. As an ornamental science, it may naturally be expected to have kept pace with the advances made in those arts to which it is nearly allied, an improved culture of each depending mainly on the same vigour of imagination and general refinement of taste. In Greece, therefore, that powerful cause, or combination of

* Diodor. Sicul. lib. i. c. 45.

causes, which so early produced by the operations of genius such a magical effect on the arts of design, exerted a similar influence on the state of architecture; and if this were the place to prosecute the inquiry, a most remarkable correspondence might be traced in the respective conditions of these various arts throughout the whole history of that wonderful people.

Different writers have attempted to show that the prototype of all, even the most minute members of architecture, is to be found in nature, or among accidental combinations of natural objects: but although these conjectures be not destitute of probability, and open a wide field for the exercise of ingenuity, they are not immediately connected with the main purpose of this inquiry.

On the rude endeavours of savages in the construction of their primæval huts, Vitruvius has sufficiently dwelt. But on the more interesting question of the obligations imposed on the architecture of Greece, by the previously established practice of Egypt, he is silent; and not only neglects to inquire into this point, but appears to avoid all mention of the buildings of the latter country. However forcibly the different character assumed by Grecian art may incline us to doubt its Egyptian origin, it will be difficult to resist the unanimous voice of antiquity on this subject; for we shall scarcely find a district of Greece without its tradition of foreign adventurers, bringing to the coasts an improved state of knowledge and civilisation; and whether these personages are to

be traced directly to Egypt, or rather to Syria, is immaterial, as in that age the two countries were nearly identified.* The vanity of some nations may, perhaps, receive gratification from the fabled intercourse of their ancestors with foreign heroes, and their own descent from such a source. The expedition of Æneas, and even the settlement of the Trojan Brutus might be pleasing to their self-created posterity; but the proud feelings of the *earthborn* Athenians could never have been flattered by the invention of a tale which confessed their rescue from the rudest state of barbarism by an unknown Egyptian, whose only claim to notice is in his capacity of their legislator. A confirmation of the prior advances made in the arts of design by the inhabitants of the coast of Syria and of Egypt is afforded by the conclusive testimony of Homer, from whose expressions the wealth and magnificence of the Egyptians are apparent, and with whom it is a sufficient commendation of any object of beauty and elegance that it should be called Sidonian. The distinctive appellation which he has given to this people, is that of "skilful workmen."† It is true, that with the Greeks the arts soon lost the character impressed on them by their first teachers: their sculpture, at a very early period, far from bearing any resemblance to the timid and lifeless productions of the Egyptian artists, was carried to the opposite extreme; all is energy; and the spirit

* See some conclusive observations on this subject, Mitford's Hist. of Gr. v. 1. It must, however, be admitted that the silence of Homer tends, in some degree, to invalidate the notion of Egyptian colonisation.

† Σιδόνες πολυδαίδαλοι.—Il. xxiii. 744, *et pass.*

and truth of the work are in a manner burlesqued by distorted action and violent gesture. This entire change was owing to the same active and enterprising mind, which had enabled them still more rapidly to advance their poetry to perfection, and which arose probably from the general freedom of their governments, and the constant communication between numerous independent states. Yet, even in Greece, there was a time in which sculpture unquestionably partook of that stiff columnar style, which, from the remotest antiquity, prevailed on the banks of the Nile, unimproved and unchanged by succeeding ages. The Dædalean statues, notwithstanding the exaggeration of ancient writers, appear to have been of this kind, and the existing descriptions of the earliest representations of the deities, with the imitations of these works still remaining to our times, place the resemblance beyond all doubt. Architecture too, although it quickly ceased to be solely employed in the erection of operose and tasteless fabrics, and became in the hands of the Greeks distinguished for propriety, elegance, and grandeur, may yet be said to have been, in some measure, indebted to the practical endeavours of this inferior people.

In thus mentioning the obligations of Grecian architecture to the practice of Egypt, the statement must be understood as limited to the mere mechanism of the art, and not as intended in any degree to detract from the just claims of the Greeks to originality. If, indeed, the discovery of all that is admirable, of all in which beauty and attractions consist, can sanction

such a claim, we may safely place this art among those which they most distinguished by the fertility of their invention, as well as by the unparalleled beauties of their execution.*

In treating of an age far removed from the approach of regular history, it is fortunate that we are furnished with a guide so unerring as Homer, whose general accuracy of observation, and minuteness of description, are such as to afford a copious source of information respecting almost every thing connected with the times in which he composed his work; and who, being nearly contemporary with the events which he relates, and, indeed, with the earliest matter for record in Greece, cannot fall into mistakes and anachronisms in arts, or manners, or government, as he might have done, had he lived at a more advanced and refined period.

It may be right, however, in this place to observe, that in proportion to the value of the historical information afforded by the works of Homer, and the implicit credit due to his testimony, we should be peculiarly scrupulous in admitting any passage which may possibly be spurious, although possessing the authority of his name. This is not the proper place to undertake an inquiry into the origin of the Homeric poems; but the multitude of interpolations, which are known to exist throughout these admirable produc-

* The qualities of an able architect seem always to have been rare even in Greece, in the whole of which, according to Plato, very few such could be found. He says that the pay of a common builder was five or six minæ, but that an architect would require more than ten thousand drachms.—Plat. Ἐρασται, ed. Serran. t. i. p. 135.

tions render the utmost caution necessary, especially where any hypothesis is to be maintained merely by a doubtful allusion or an insulated expression.

Whether either the Iliad or the Odyssey was the work of a single hand has been much doubted, perhaps with reason; but certainly with a considerable appearance of reason, supported by evidence both external and internal, so far at least as the Iliad is concerned. The total ignorance of the history, or even real name of their author, the variety of great poems, amounting to more than twenty in number, attributed to him by the ancients, and the contention of different states for the honour of his birth, are embarrassing circumstances when considered with reference to a single individual. But whatever may be the fact with respect to the author or authors of these poems, the great mass of both is undoubtedly of sufficient antiquity to be received as casting the strongest, and, indeed, the only light we possess, on the earliest ages of Grecian history. It is against the pretended genuineness of detached verses and small fragments that we should be on our guard, for such are most likely to be of recent introduction; and a few words on the manner in which these interpolations have found their way into the poems, will show that such a corruption of the text was almost inevitable.

Without stopping to inquire whether the Homeric poems were consigned to writing at the period of their promulgation, or whether a written character was even known to their author, we may, in passing, remark

the singular circumstance, that he who alludes almost to every occupation of men, and draws his illustrations from all their pursuits, is wholly silent with respect to this valuable art, even where the mention of it would have been most obvious. It may even be affirmed with confidence, that on the supposition of a written character existing at the time, it would be altogether impossible for an author to compose a long poem of many thousand lines, relating to human affairs, or indeed on any subject whatever, which did not contain either a direct mention of the art, or such allusions at least, as should necessarily imply a knowledge of its existence. But this part of the inquiry is not in truth very important, because it is manifest that such works as the Iliad could not easily have been engraved on marble, brass, or wood, the only materials employed by the Greeks for a long time subsequent to the period in question; and therefore the common use of written characters, whatever may have been the precise date of their introduction into Greece, cannot be supposed to have been in any degree coeval with that event. Neither is it necessary in this place to examine the probability of the statement respecting the disjointed and unconnected nature of the poems in their original condition, or more particularly to estimate the value of the received opinion respecting the labours of Pisistratus in first arranging and embodying these separate productions of the same, or different authors.* Laying aside such

* The whole of this question is fully and satisfactorily examined by Heyne, Il. tom. viii. Excurs. 11, ad lib. 24. See also Wolf. Prolegom. ad

discussions, it is sufficient that we know the fact to be undoubted, of their having been for many ages chiefly preserved in the memories of rhapsodists, or professional reciters. If they were written at all, the copies were rare; for by the nation in general, the poems of Homer were not read, but heard. The rhapsodists, or Homeridæ, as they were called, often poets themselves, were persons who derived their support, as well as the respect paid to their character, from these recitations. Their popularity must have mainly depended on the interest of the parts which they delivered to their audience: hence we find that the more prominent events of the poems received particular names, and formed the subject of separate recitations. Plato, in the Io, which is a satire on the rhapsodists, ridicules their mercenary conduct; and from the motives by which they were actuated it is obvious that their interpolations must have been frequent, in order that they might either avail themselves of the exercise of their own poetic talents, or gratify the vanity of their hearers by allusions to national tales, and subjects of local interest. The early peculiarities of the Greek language and archaic orthography of the Homeric age, were modified by succeeding reciters to suit the forms of speech prevalent in their own times; and hence the facility of interpolation was much increased, and the difficulty of detection proportionably augmented. From the manner in which

Hom. The σήματα λυγρὰ, mentioned in the sixth book of the Iliad, and the description of the chiefs drawing the marked lots from the helmet of Agamemnon in the seventh, are explained at length, xviii. xix.

the poems were handed down, in detached portions, little read or critically examined until a comparatively late period, their condition cannot be considered as likely to secure the integrity of the text: for copies were not usually transcribed entire, but favourite parts or rhapsodies were preserved according to the fancy of the possessor. Alcibiades is said to have beaten a schoolmaster, not because he did not possess a copy of the Iliad, but because he had not a single rhapsody of the Homeric poems in his school.

A certain test by which we may judge of the spuriousness of all passages is still a desideratum in the critical examination of these immortal works. The Greek writers, in general, from their puerilities, and from their ignorance of the early state of their own language and history, are in such discussions most unsatisfactory; yet the *obeli* of the Alexandrian critics, and their scholia, preserved by Eustathius, and in the Venetian manuscript of the Iliad, published by Villoison, are valuable.* The only certain and steady light, however, which can be thrown on this difficult subject, is afforded by the early language of Greece, where a competent knowledge of it is attainable. The Greek tongue has shared the fate of all others; it has been exposed to the constant operation of gradual change. The original Greek of the Homeric ages and of Apollonius Rhodius differ nearly as much as the English of Chaucer and Dryden. A knowledge of these early peculiarities is best obtained

* Heyne, Il. tom. iii. Exc. de Schol. p. 80, *et passim;* Knight, Prolegom. in Hom. c. 82.

from the evidence of ancient inscriptions, the legends of coins, and scattered notices in later authors; but more especially from an examination of the Latin language, which being derived from the Greek at a very early period of its existence, has retained a multitude of archaisms and forms of speech entirely unknown to the more modern, or Attic Greek. In restoring the actual text of the Iliad or Odyssey to its pristine condition, either by the insertion of the Æolic digamma, or the application of any other rule derived from the sources above mentioned, we shall frequently find that the just metre, as at present constituted, would be violated; and in these instances, we may presume that the verse has been constructed according to the usage of a more modern age. This is not the place, however, to enumerate the different modes by which we may be enabled to approximate to a knowledge of the pure and genuine text of these poems: and indeed, even if the occasion demanded, and the requisite ability were not wanting for such an inquiry, it would be rendered nearly superfluous by the learned and successful labours of my friend Mr. Knight; who, in the edition of the Homeric poems which he has recently published, has attempted to restore them to their ancient and primitive state. Although a work of this kind must undoubtedly be considered liable to some corrections, and capable of improvements from the fresh illustrations which are occasionally afforded by progressive discoveries, in a subject so difficult and obscure; I am fully persuaded that its merits will be most highly appreciated by those who are the best

qualified to estimate the almost insurmountable obstacles to such an undertaking: while to the lovers of Grecian literature, and especially to the admirers of these noblest productions of human genius, the work, executed in the manner it is, must prove truly interesting and valuable.

In the early stages of civilisation, the main object of an assembled population would naturally be security; and from the lawless condition of society, during this period of Grecian history, it appears to have been necessary for the inhabitants to build their towns in situations difficult of access, and in the defence of which they were as much indebted to the assistance of nature as to the employment of art. These fortresses, which, in the infancy of the state, contained its whole population, frequently became only the citadels of towns, which, under their protection, had gradually extended themselves in the plains beneath. The most ancient Greek cities seem also to have been generally built at some distance from the sea; doubtless for the same reason which even at the present day often drives the modern inhabitants from the coast, in order to avoid the piratical expeditions so natural at all times to the maritime population of this part of the world. For the attainment of the requisite security, and in all their works designed for defence and protection, we may observe the disproportionate and wonderful exertions employed by various nations in the earliest periods of their history; exertions, which, by their more polished descendants, have usually been attributed to the agency of a supernatural power: for it is

remarkable, that with whatever admiration we may view the works of later ages, the gigantic and ponderous masses which call forth our astonishment, have been in all nations the production of a people comparatively barbarous. Hence the vast labour bestowed on the construction of walls, the remains of which are so common in different parts of Greece, and which are the first, and certainly among the most wonderful specimens of building in that country. Of these the walls of Tiryns are the most ancient, and perhaps the most celebrated. Homer, in the catalogue, gives to the town the characteristic epithet of τειχιόεσσα,* a clear proof that the walls were calculated to excite admiration in his time as well as in our own. It is difficult to ascertain the precise date of their erection: but they were said to have been the work of Lycians, under the direction of Prœtus, the brother of Acrisius.† This story would carry us five or six generations higher than the era of the Trojan war. In after times, however, from their massive and gigantic proportions, as well as from the absence of authentic information respecting them, they were generally considered as having been raised by the Cyclops. The description given by Pausanias is to this day correct.‡ These walls are about a quarter of a mile in circuit, and embrace a rising ground of inconsiderable elevation, situated in the plain of Argos. There are separate entrances;

* Il. ii. 559.

† Strabo, lib. viii. p. 373; Pausan. Argol. c. 16, 25.

‡ Pausan. Argol. c. 25: πεποίηται δὲ ἀργῶν λίθων, μέγεθος ἔχων ἕκαστος λίθος, ὡς ἀπ' αὐτῶν μηδ' ἂν ἀρχὴν κινηθῆναι τὸν μικρότατον ὑπὸ ζεύγους ἡμιόνων· λιθία δὲ ἐνήρμοσται πάλαι, ὡς μάλιστα αὐτῶν ἕκαστον ἁρμονίαν τοῖς μεγάλοις λίθοις εἶναι.

and leading from one of these, may be seen a covered gallery or passage, formed in the thickness of the wall, the course of which it follows to some extent; the roof, although rudely constructed, in some measure resembles that of the gallery in the great pyramid, being composed of large stones inclined towards each other, and forming an acute angle by their junction.

In the vicinage of Tiryns, nearly coeval with it, but far surpassing it in extent, are the remains of Mycenæ. This city, so distinguished at its first introduction to our notice, remained, during the flourishing ages of Grecian history, in a state of ruin and desolation. Tradition names Perseus as its founder, but the execution of the walls, like those of its neighbour town, is referred to the hands of the Cyclops. The condition of Mycenæ is, I should suppose, very much that in which it was seen by Pausanias, or even by Thucydides five hundred years before : indeed these stupendous masses, in their present dilapidated state, appear to be so indestructible, as to defy the further injuries of time, as well as the violence of any force inferior to that which was employed in their construction. Pausanias informs us, that in his time, among the ruins of the walls, a gate remained, over which was the representation of two lions.* This gate, which seems to have been the principal entrance to the city, does not stand even with the course of the walls, but is placed considerably within the line described by their general circuit. The approach, therefore, is,

* Pausan. Argol. c. 16 : λείπεται δὲ ὅμως ἔτι καὶ ἀλλατοῦ περιβόλου, καὶ ἡ πύλη· λέοντες δὲ ἐφεστήκασιν αὐτῇ.

for some paces by a sort of passage between the walls, and scarcely of a greater width than the gate by which it is terminated. Defence was the object of this contrivance, by which few persons abreast could reach the entrance at the same time, and in the attempt must necessarily have been exposed to destruction from the weapons of the inhabitants stationed on the ramparts of each wall which formed the avenue. By the accumulation of earth this gate is buried nearly up to the top, where it is not more than eight feet wide, yet the lintel is one massive stone twelve feet in length. The jambs, which probably consist only of single stones, are inclined towards each other, the width of the opening being gradually diminished from the bottom; a contrivance by which the whole building is apparently strengthened, and which furnishes us with a singular coincidence with the manner of Egyptian building. The walls themselves have in their construction more of care and art, and, perhaps, exhibit the marks of a period somewhat later than those of Tiryns. For although the polygonal blocks are nearly of the same dimensions, they are fitted together with greater exactness, and have been so shaped in part as to ensure some degree of regularity: whereas the walls of Tiryns consist of rude masses of rock piled on each other, the interstices of which are filled up with small stones, and fitted together by the ingenuity of the builder, without having been previously formed by the aid of the chisel or the saw. The lions mentioned by Pausanias are executed in *bas-relief* on a single stone nine feet in height, and about thirteen feet in width.

Their heads only are destroyed; between them is placed a species of small column supporting a capital of a singular form, on which their fore legs rest. Whether we are to view this work as possessing any mystic and symbolical meaning, or to explain it as an obvious and general emblem, or even as the private device and *impressa* of an individual, this is not the place to inquire. It may be sufficient to observe, that probably no example of Grecian sculpture is to be found of equal antiquity, and certainly none whose age is fixed by evidence in any degree so satisfactory.

There are many walls in various parts of Greece which, from a resemblance in their construction, and, in some instances, even in their magnitude, to those of Tiryns and Mycenæ, have acquired the appellation of Cyclopian. These may be considered as among the first attempts of Grecian art: although in assigning to them generally this early date some caution is requisite; for those characteristics which at Athens and Argos may properly be viewed as the unquestionable marks of the most ancient times, do not necessarily lead to a similar conclusion when found in Macedonia and Epirus. Perhaps the best criterion of antiquity is afforded by their massive and gigantic proportions; for we should scarcely be justified in indiscriminately referring monuments to these remote ages, solely from the appearance of a rudeness and peculiarity which may have arisen from ignorance, or even from the affectation of an archaism not unfrequently to be met with. Indeed it is manifest that as this is the readiest and simplest mode of building, as

practised in all countries and in all ages, it can only be in consequence of their vast dimensions, that such monuments have received the appellation of Cyclopian; which term, therefore, when properly explained, will only signify architecture of an indefinite antiquity, of rude workmanship, and of which the dimensions are such as almost to appear to be the effect of preternatural force. It would be an unprofitable task to inquire into the history of those fabulous builders from whom this title has been derived. The result could not fail to prove in the greatest degree contradictory and uncertain; as the Greeks, with their usual negligence and facility of belief, have given the same term to all structures of a similar description, without any reference to their real authors, age, or origin. The term being thus vague in its application, it is of the less consequence whether we trace the supposed inventors of the style to Lycia, to Sicily, or to Crete; or consider them as a portion of the Pelasgic race, the ancient inhabitants of Greece; for, in truth, all these tribes, as well as many others, in the early periods of their history, may with equal propriety lay claim to the Cyclopian character in their architectural works.

The same motives of defence and security which, during the unsettled and turbulent condition of Greece at the first dawning of its civilisation, prompted the small independent states to strengthen the walls of their cities with such incredible labour, seem very generally to have influenced these communities, as well as some of the more powerful individuals, in the measures adopted for the preservation of their wealth

and valuable possessions. Treasuries were common in Greece at a very remote period. Minyas, who ruled the Bœotian Orchomenos, considerably before the era of the Trojan war, is said to have been the first who erected a building for this purpose:* and the consecration of precious offerings to Apollo at Delphi is coeval with the first notices of Grecian history. The wealth of the "Minyæan Orchomenos" is celebrated in that passage of the Iliad, in which Achilles rejects the offers of Agamemnon:† and when, in the course of his reflections, he goes on to say that the loss of life cannot be compensated even by the possession of all the riches inclosed in the "stone mansion of Apollo,"‡ I think it highly probable that Homer alludes, not, as is generally understood, to a temple, which there is reason to believe did not exist at that time, but to some treasury, which, from the manner of building employed in these edifices, might well deserve the characteristic appellation of ΛΑΙΝΟΣ; and a passage of Strabo tends to confirm the accuracy of this conjecture; for he expressly declares that the words of Homer were construed by some to signify a subterranean treasury, and not the temple of Apollo.§

Many Grecian states had their separate treasuries at Delphi, as well as at Olympia. That of the Corinthians was built by Cypselus the father of Periander,

* Pausan. Bœot. c. 36.

† Il. ix. 381.

‡ Οὐδ' ὅσα λάϊνος οὐδὸς ἀφήτορος ἐντὸς ἐέργει
Φοίβου Ἀπόλλωνος Πυθοῖ ἔνι πετρηέσσῃ.
Il. ix. 404.

§ Strab. lib. ix. p. 421: ἀφήτορος δ' οὐδὸν, τὸν κατὰ γῆς θησαυρισμὸν κ. τ. λ.

about six hundred and fifty years before Christ. The treasury of Atreus and his family is mentioned by Pausanias as existing at Mycenæ in his time, and there are other scattered notices of these early buildings occasionally to be met with in Greek writers. The artists of the heroic ages most celebrated in constructing these edifices were the brothers Agamedes and Trophonius, concerning whom many particulars are related, but of whom nothing certain is known, and whose very existence seems more than doubtful. They are not once mentioned or alluded to in the Homeric writings; for the Hymn to Apollo cannot be considered as possessing any claim to such high antiquity. In this poem however they are mentioned as the builders of the temple at Delphi; and it is remarkable that the words employed to designate the edifice have been borrowed by the author from the peculiar expression in the Iliad.* A story is told by Pausanias,† of their employing an artifice in building the treasury of Hyrieus, which by enabling them easily to displace a certain stone of the edifice, gave them the power of secretly entering, and of purloining the riches deposited there, at their pleasure. Agamedes was at last caught in a snare placed in the treasury for that purpose; and Trophonius, finding it impossible to extricate him, cut off his brother's head, in order to prevent his own detection. All this, however, with additional circumstances of absurdity and

* Hymn. in Apoll. v. 296 :

Λάϊνον οὐδὸν ἔθηκε Τροφώνιος, ἠδ' Ἀγαμῆδης,
Υἱέες Ἐργίνου.

† Pausan. Bœot. c. 37.

disgust, is detailed by Herodotus in the words of the Egyptian priests, from whom he had the fable, and to which country the scene and actors exclusively belong.* We cannot therefore place any reliance on the tales respecting these brothers; nor ought we to give more credence to the greater performances ascribed to Dædalus, whose fabulous existence is still less equivocal.† All works of sculpture or other monuments of the highest antiquity and comparative merit, appear to have been called Dædalian, which epithet perhaps implied nothing more than skilful. Pausanias expressly says (Bœot. c. 3.) that statutes were called Dædalian before the birth of Dædalus. ΔΑΙΔΑΛΟΣ therefore signified, in fact, only "the artist."‡ This person, it is true, is mentioned in the Iliad, but there can be no doubt whatever that we should consider the passage as spurious; for even those who dissent from the opinions of Heyne and others, in their proposed rejection of the whole episode in which it is inserted, agree in stigmatising the genuineness of the particular words here referred to. They are to be found in the description of the shield of Achilles, in which allusion is made to the representation of a dance executed by Dædalus in celebration of the victory of Theseus over the Minotaur, and his escape from the labyrinth.§ The story to which this relates is not to be discovered in the genuine part of the Homeric poems, and although it would be superfluous to lose time in the detection of

* Herod. lib. ii. c. 121. † *Idem*, c. 148.

‡ For additional particulars containing a satisfactory refutation of the ancient accounts of this artist, see Goguet. Orig. des Loix, tom. ii. p. 11.

§ Il. xviii. 591, 592.

so manifest an interpolation, abundant proof may be afforded in few words from the account alone which is given of the labyrinth. If a building of this nature ever did exist in Crete, a supposition probably unfounded, all writers agree in stating that it was constructed by Dædalus in imitation of that which he had seen in Egypt. Now, Herodotus, the first author who has described, and in the most detailed manner, the Egyptian labyrinth, positively asserts that this stupendous edifice was the work of the twelve kings, that is to say, between six and seven hundred years after the date necessarily assigned to the Cretan labyrinth of Dædalus.

Perhaps the most interesting monument of these ages is the treasury of Atreus, still existing at Mycenæ. It is a building of a conical shape, or, more correctly speaking, in the form of a paraboloid, about fifty feet in diameter, and rather more in height; the stones of which it is composed are of great magnitude; that in particular which covers the entrance is of enormous dimensions. They are placed in horizontal layers, each gradually projecting over the other until they meet at the top; the whole therefore has the appearance of a pointed dome, but the mode in which it is constructed denotes an entire ignorance of the principle of the arch. That the interior surface was formerly covered with plates of brass we have good reason to suppose, for large nails of the same metal, by which they were anciently fastened, still adhere to the stones in different parts of the building. The whole of this singular edifice is covered with earth,

and presents in its outward form the resemblance of a mound or tumulus. This circumstance has no doubt suggested the appellation of the tomb of Agamemnon, which it usually bears, and which is also mentioned by Pausanias; but independently of his description of the subterranean treasury, which sufficiently points out the destination of this building,* the Homeric rites of sepulture are too accurately detailed to render it possible for us to admit the probability of such a supposition. Some additional illustration is to be derived from the few remains of the treasury of Minyas, which are still to be seen at Orchomenus; and from these, as well as from the account of Pausanias,† there is little doubt that it was precisely similar to that which has just now been described. An ingenious traveller, who had never heard of the building at Mycenæ, and whose premature death prevented him from ever seeing it, by measuring these remains and applying them to the restoration of the original design, produced a building, in plan differing in no respect from the treasury of Atreus. The scattered notices which we possess of works erected throughout Greece for the same purpose, contribute to remove all doubt as to the origin of the structure, which, by a conjecture equally erroneous, has been sometimes denominated the temple, as well as the tomb of Agamemnon. Homer perhaps alludes to a building not very different from these

* Pausan. Cor. c. 16: *ἐν δὲ τοῖς ἐρειπίοις—Ἀτρέως καὶ τῶν παίδων ὑπόγαια οἰκοδομήματα, ἔνθα οἱ θησαυροὶ σφισι τῶν χρημάτων ἦσαν.*

† Pausan. Bœot. c. 38.

when he mentions the treasury of Priam, into which the aged monarch is said to descend, for the purpose of selecting the precious objects for the ransom of the dead body of his son; hence we may reasonably infer that it was a subterranean edifice. He gives it also the peculiarly characteristic epithet of lofty-roofed.* It is to be observed that the later treasuries, although they preserved the circular form, were often built with porticoes in front. Pausanias describes the treasury of the state of Megara at Olympia, as having the war of the giants represented in the tympanum of the pediment;† from which it is evident that there must have been a portico. It is not unlikely that the Pantheon at Rome, which corresponds with this description, may originally have had a similar destination.

If we seek for those parts of architecture properly termed ornamental, which were known to Homer, we shall discover scarcely anything to answer this description, and nothing that can afford the least intimation of his having possessed any knowledge of those varieties under which the different modes of building have since been classed. The chief decoration of the age seems to have consisted in a polished surface. The stones were large, well fitted together, and above all, perfectly smooth. The charm and grace of forms were unknown; for although the chambers and buildings themselves are sometimes said to be lofty, there is no indication of any symmetrical proportion. In the imaginary palace of

* Il. xxiv. 191.

† Pausan. El. *post*, c. 19.

Alcinous, which is intended as the model of ideal perfection in the art, no attempt is made to describe architectural beauties; but to compensate for the defect, no exaggeration is spared to make it rich. We have brazen walls and golden doors, with silver posts and lintels.* The palace of Menelaus is represented in nearly the same general terms of magnificence. It was full of brass and gold, silver and ivory: it was resplendent as the sun and moon, and appeared in the eyes of Telemachus like the mansions of Jupiter himself.† All this seems pretty clearly to indicate the total deficiency of what can with any propriety be called architectural ornament.

Perhaps we may in a great measure ascribe the simplicity which reigned in these early buildings to the peculiar superstition of that period. It is certain that the same spirit of devotion which in succeeding times filled every state with splendid monuments of art, did not then exist, and I think there is great reason to believe that in the Homeric age temples were even scarcely known in Greece. It is remarkable that in the Iliad mention is but once made of any Grecian temple, and I think there will be little difficulty in proving this passage to be an interpolation. In the catalogue of the ships, when the forces of Athens are enumerated, they are called "the people of the noble Erectheus, whom the fertile earth produced, and whom Minerva nourished. She placed him in her own rich temple, where he is annually propitiated by the Athenian youth with sacrifices of

* Od. vii. 88. † *Idem*, iv. 45, 74.

bulls and lambs."* To disprove the authenticity of this passage, it is sufficient to state that throughout the Iliad there is no indication which can lead us to suppose that Homer was acquainted with the practice of hero-worship. Divine honours were not paid even to Hercules, or to any of those mortals who afterwards became objects of adoration in Greece. The origin of the interpolation may be easily traced to the desire of some Athenian rhapsodist, to gratify his own national vanity, and that of his audience, at the expense of truth; for there existed in Athens a most ancient temple dedicated both to Minerva and to Erectheus, in which they had their respective altars, and which was perhaps more revered than any other building in the city. This connexion, so sacred, so gratifying, the memorials of which were of an antiquity so high, might, without much scruple, be made to receive additional dignity from its insertion in the divine work of Homer. The fable also, invented by the Athenians themselves, respecting the production of Erectheus from the earth, was too flattering to their vain-glorious pretensions as *Autocthones*, to be forgotten on this occasion. We may observe likewise that in the passage in question they are called "the people of Erectheus"—ΔΗΜΟΝ Ἐρεχθῆος.—This is a term by which Homer never describes any other state, and which indeed is evidently derived from their

* Il. ii. 547:

Δῆμον Ἐρεχθῆος μεγαλήτορος, ὅν ποτ' Ἀθήνη
Θρέψε, Διὸς θυγάτηρ, τέκε δὲ ζείδωρος Ἄρουρα,
Κὰδ' δ' ἐν Ἀθήνησ' εἷσεν, ἑῷ ἐνὶ πίονι νηῷ.
Ἐνθάδε μιν ταύροισι καὶ ἀρνειοῖς ἱλάονται.

own subsequent condition, and peculiar appellation, under a republican form of government: it cannot therefore be applicable to them as the followers of Menestheus. These arguments appear to be sufficient. It is proper nevertheless to mention that Plato manifestly refers to this passage, in one of his dialogues, without intimating a doubt of its being genuine; but such a reference, although it may undoubtedly serve to prove the antiquity of the interpolation, can by no means alter its character.*

If, however, we may with good reason believe that temples were unknown in European Greece during the age of Homer, and that the altar, with its sacred inclosure, was the scene of all public sacrifices and religious rites, we are led to think that some difference existed in this respect on the Asiatic coast; for in Troy we find a temple of Minerva is mentioned, although without any description or circumstance of ornament.—The doors are opened, and the goddess is approached,†—the building appears to have been solely intended as a sort of shrine or receptacle for the statue; if indeed it be not possible, as an ingenious friend has suggested to me, that the poet intended to describe the presence of Minerva herself, and not her image; especially as it does not appear that the representation of any deity is elsewhere

* Plat. Alcib. prim. t. i. p. 132, ed. Serran. The conjecture of the interpolation of these lines has recently received the sanction of Mr. Knight's opinion, who further states that the expression ζείδωρος Ἄρουρα signified, in the earliest ages of the language, the cultivable surface of the earth, rather than the earth itself.—Knight, Il. not. in B. p. 11.

† Il. vi. 297 : θύρας ὄϊξε Θεανὼ—

mentioned in the Iliad. Allusion is likewise made, but unaccompanied with any particulars, to a temple of Apollo in the vicinity of the same city.* In the Odyssey notices may occasionally be found of sacred buildings even in Greece, and this is to be considered as one, among other indications, which mark that poem as the production of a later age.

The early Greeks, therefore, being in a great measure deprived of this abundant source of future magnificence, their chief display of skill and splendour in the art was confined to the erection of the habitations of their princes, and to the buildings dependent on them. These, as I have already stated, appear to have possessed little of architectural ornament. It is not my intention, however, to attempt any minutely-detailed description of these edifices, for the inquiry, although not uninteresting, being unassisted by the remains of any coeval monument, and being founded on the disputed interpretation of various passages, some of which are themselves of doubtful antiquity, cannot be expected to lead to any very accurate result. A general view of this species of the Homeric architecture will be sufficient, preserving at the same time some attention to such particulars, as from their character of ornament may serve to afford a more correct notion of the state of the art.

These mansions, whose chief recommendation was constituted by solidity and extent, were built round a court; a plan universally adopted in succeeding ages, and which still prevails in the same countries.

* Probably in Tenedos.—Il. i. 38, 446; vii. 83.

The palace of Priam answers this description; it was composed of hewn stone, constructed with open chambers or porticoes, and in addition to the part occupied by the old king, contained fifty apartments allotted to his sons, and on the opposite side of the court twelve separate habitations for his sons-in-law and their wives.* The chambers in general of the Homeric buildings, with the exception of the great hall of the palace, appear to have been small, at least no expression occurs respecting them which can lead us to think otherwise. Rich furniture was not uncommon; the seats and couches were frequently distinguished by their costly materials and beautiful workmanship;† but the chief decoration consisted, probably, in the magnificence of the arms, and in the skilful manner in which they were arranged.‡

We may conclude that the form of the roof was pointed, for in the funeral games when Ajax and Ulysses grasp each other for the purpose of wrestling, they are compared by Homer to two beams of the roof, which some able architect had closely fitted together at the summit.§ These rafters in subsequent ages retained the appellation by which they are characterised in the Iliad.‖ Terms of admiration are sometimes used in mentioning the beams,¶ but they are vague, and contain nothing descriptive of their quality. It is not easy to conjecture in what their beauty may have consisted, unless perhaps in strength

* Il. vi. 242—250.
‡ Il. vi. 321.
‖ Poll. x. lib. i. c. 8.
† *Idem*, xi. 644; xviii. 390; Od. xx. 160.
§ *Idem*, xxiii. 712.
¶ Od. xix. 37.

and suitable proportion. The interior part of the roof, it would seem, was usually left open to the top, with the insertion however of other timbers, in order to afford additional security. Columns supported the horizontal beams, to one of which the goat-herd Melanthius was drawn up and bound by order of Ulysses until his execution.* From one of the beams, also, Minerva, in the figure of a bird, beheld the destruction of the suitors.† Homer extols the skill of the Trojan architects: a sufficient proof of the superior advances made by the Asiatics in the art; and yet it is remarkable, that neither in the palace of Priam, nor in that of Paris, said to be raised by the most able workmen, is there any thing which indicates the appearance of ornament, excepting the mention of polished stone.‡ This, indeed, seems to have composed the main beauty of the Homeric buildings. In imaginary edifices the materials are sometimes changed, and we find a profusion of the precious metals employed in their construction; but

* Od. xxii. 195.

† *Idem*, 239. There is a passage in the Orestes of Euripides, which not only indicates the ancient construction of roofs to have been of this description, but which, if it were possible to give any credit to the accuracy of the Greek tragedians in these matters, would at once convince us of the existence in the Homeric mansions of those ornamental distinctions of Doric and Ionic architecture which were the creation of a later age. After the murder of Helen at Argos, her Phrygian attendant informs the Chorus that he escaped from the palace over the cedar beams of the roof and the Doric triglyphs.

Κεδρωτὰ παστάδων ὑπὲρ τέρεμνα,
Δορικάς τε τριγλύφας.

Escaping by the Doric triglyphs may, perhaps, mean passing through the metopes, which seem anciently to have been left vacant, for the purpose of admitting air and light into the building.—Orest. 1378, et vid. Schol.

‡ Il. vi. 315.

this, as I have before observed, is an additional proof of the poverty of the architectural decoration. From the frequent mention of hewn and polished stone in the most costly and magnificent mansions, it would appear that the general practice in the time of Homer himself was confined to the employment of those irregular masses still to be seen in the walls of Tiryns. In the Odyssey, however, amongst the details of the palace of Ulysses, the marks of an age somewhat later are discoverable.

It is not certain that the author of the Iliad had any knowledge of houses formed in regular divisions of stories. Two passages evidently alluding to such buildings are of doubtful antiquity;* and the true meaning of a third has, I think, been forcibly bent to this interpretation.† In the Odyssey, mention of the upper chambers, especially as the residence of women, frequently occurs.

The use of columns was not unknown to the author of this latter poem, although neither the word itself, nor the thing signified, is to be found in the pages of the Iliad. It may be requisite here to pay some attention to the columns in the palace of Ulysses; more especially as from a bare allusion to the fact of their existence, it might be thought unjustifiable to exclude them from the appellation of architectural ornament. It is first to be observed, that these columns form no part of the exterior building; their use is not only confined to the interior, but for any thing that appears to the contrary, exclusively to the great

* Il. ii. 514; xvi. 184. † *Idem*, vi. 248.

hall of the palace. Their employment in that situation was obviously dictated by necessity. From the ample space of the apartment, some support, in addition to the lateral walls, was required to give security to the beams which composed the roof; this security, we may conclude, was obtained by the insertion of a row of columns passing longitudinally through the centre of the chamber. It is remarkable, however, that, in the Odyssey, frequent mention is made of the "lofty column," or the "great column," as a single object: indeed if it were not for the passage (xix. 36), in which the columns are distinctly referred to in the plural number, we might almost be tempted to imagine that Homer intended to describe an apartment in which the beams of the roof were supported by a single column. Such was the cause and mode of their introduction. According to the general opinion, the material of which they were formed was wood: and the accuracy of this opinion is confirmed by the nature of their origin and use, as well as by a combination of circumstances which unite for this purpose. Throughout the Odyssey the mention of columns is purely incidental: they are never described in detail, nor do they make part of any description of architectural magnificence. Epithets of admiration are frequently bestowed on the walls, the doors, the beams and pavement, while the column is never said to be well built, well polished, or aptly proportioned. The height only is occasionally alluded to. This rare and casual mention, and always as a feature of so little prominence, seems clearly to evince that Homer, at

least, never imagined that his palaces would derive additional beauty and splendour from its introduction.

From these considerations it may be evident that I cannot assent to an ingenious conjecture formed by Mr. Knight, and since frequently repeated, respecting the origin of the fluting in columns. The conjecture is founded on a passage of the Odyssey, in which Minerva, on entering the hall of Ulysses, is said "to place her spear by the tall column, within the well polished spear-holder, in which were many others belonging to the prudent chief." * This spear-holder has been understood to mean one of the channels of the fluting. The word, however, seems clearly to allude to a single and capacious repository of arms adjoining to the column, or constructed in it. The spears of Ulysses are not said to be ranged around the column, each in its proper spear-holder; one repository only is mentioned, which contained the weapons of the prince; and in which Minerva placed hers also. It is thus explained by Eustathius, who calls the spear-holder a columnar receptacle, or rather one formed in the column itself for the convenience of containing the spears in an upright position.† The illustrations of the word given by Suidas, Hesychius, and Pollux,‡ are perfectly consistent with the interpretation here stated, and afford not the slightest

* Od. i. 127:

ἔγχος μέν ῥ' ἔστησε φέρων πρὸς κίονα μακρὴν
δουροδόκης ἔτοσθεν· ευξόου ἔνθά περ ἄλλα
ἔγχε' Ὀδυσσῆος ταλασίφρονος ἵστατο πολλὰ.

† Eustath. in loc.: ὅτι δουροδόκη ἔστι θήκη δοράτων κιονειδὴς ἢ μάλιστα εἰς κίονα ἐγγεγλυμένη ἐν ᾗ πρὸς ὀρθότητα τὰ δόρατα ἵσταντο.

‡ Suid. in loc.; Hesych. in loc.; Poll. lib. i. c. 10; vii. c. 33; x. c. 33.

intimation of an architectural origin. If the true meaning of the passage were less obvious than it really is, however ingenious the conjecture, there would still be strong presumption against its accuracy. That an operose contrivance should have been resorted to for this simple and useful purpose seems so highly improbable, that even if ΔΟΥΡΟΔΟΚΗ must be considered as connected with, and in a manner almost forming part of, the column itself; yet, by explaining the word to signify some species of repository, so fixed and fashioned as to receive and support the spears, we should surely describe a more natural invention than that of twenty channels laboriously cut around it, and which, at the same time, presented a place of deposit for the weapons much less secure and commodious. The very epithet of "well-polished," or "well-wrought," which is applied to the word, is so entirely dissimilar from all those used in other parts of the work in describing the columns, that it must be considered as alluding to something of a more ornamental construction, whatever may have been the substance of which it was composed.* The spear-holder mentioned in the passage might possibly have been something calculated for the safe preservation of such weapons as were peculiarly valuable: for, it is manifest that the usual mode of disposing the spears was not against the columns, from the circumstance of the suitors, when Ulysses begins their

* Achilles withdraws his spear from the long sheath or case (*σύριγγος*) in which it had been preserved (Il. xvi. 387). The Homeric spear was nearly seventeen feet long (Il. viii. 494).

destruction by the slaughter of Antinous, looking around for arms—not to the columns, but to the walls of the hall, from whence they had been previously removed by Telemachus.

> ἐκ δὲ θρόνων ἀνόρουσαν ὀρινθεντες κατὰ δῶμα,
> πάντοσε παπταίνοντες ἐϋδημήτους ποτὶ ΤΟΙΧΟΥΣ,
> οὐδὲ πη ἀσπὶς ἔην, οὐδ' ἄλκιμον ΈΓΧΟΣ ἑλέσθαι.*

A few words remain to be added concerning that part of the Homeric buildings which has usually been called the portico; an appellation, however, which is very far from affording any just notion of its real nature and appearance. No intimation whatever is given that it was constructed with columns, nor from any thing that appears in the pages of the Iliad or Odyssey, is there reason to believe that they formed a part of its composition. A portico without columns cannot be said to suggest ideas of much architectural beauty, and, in fact, the terms employed in its description are not such as to justify a belief that any thing ornamental was intended to be expressed by them. Twice only is it mentioned that these porticoes were polished or well wrought; and it is to be observed, that in one instance the divine mansion of Jupiter himself is alluded to; and in the other the splendid and Asiatic palace of Priam.† The etymologies given of the word AIΘΟΥΣΑ are by no means satisfactory; but we may nevertheless collect sufficient from these, as well as from the text of Homer, to enable us to form a probable conjecture of its description and use.

* Od. xxii. 23. † Il. xx. 11; vi. 242.

It seems to have been a species of raised platform or exedra, probably covered at the top, but exposed at the sides to the air, and to the enjoyment derived from this exposure we may chiefly attribute its origin; at least this is the purpose to which we find it generally applied, and the most rational explanations of the word justify this supposition.*

The influence of the same climate, and the pleasure afforded by this practice in all ages to the inhabitants of southern countries, lead us to expect that we should still discover the existence of a similar custom. In this expectation we shall not be disappointed. There is scarcely a house of any magnitude in Greece or Asia-Minor, which does not possess a kind of balcony attached to it, and frequently extending entirely round a court. Whatever may be the grandeur of the mansion, these are always formed of wood, and in a slight manner; in the day-time they are the resort of those who seek the freshness of the open air; and at night, being spread with carpets or skins, they become a sleeping-place for travellers, especially for those of an inferior rank. The ΑΙΘΟΥΣΑΙ of Homer will be found in their use to coincide with this description, and there is no reason to imagine that in their appearance they were very dissimilar.†

Whatever be the precise date we may assign to the

* Vid. Hesych. in Αἰθ.

† Il. xxiv. 644; Od. iii. 399; vii. 336; xx. 170. According to Pollux, it seems to have been a species of inner court. Onomast. lib. i. cap. vii.: καὶ αὐλὴ τὸ ἔνδον, ἣν αἴθουσαν Ὅμηρος καλεῖ. In the Odyssey it is said that, in the court of Alcinous, while skins and carpets were prepared in the portico for the bed of Ulysses, as a stranger, the king himself retired to rest in the interior of the palace.—vii. 344.

age of Homer, it is certainly to be viewed as nearly contemporaneous with the occurrence of an event which forms a most important era in the history of Greece. By the return of the Heraclidæ to the Peloponnesus, and the circumstances attendant on the conquest of the peninsula, a change, equally extensive both in the manners and in the political condition of the inhabitants, was effected. Bloody wars, and the conduct of the Dorian invaders, contributed to check the advances which had already been made in refinement, and to plunge the country into a state of comparative ignorance and barbarism. How long these ages of darkness continued it would be difficult with any accuracy to determine; but, for several centuries after the return of the descendants of Hercules, the history of Greece presents nearly a total blank. During the heavy pressure of such causes, the progress of ornamental architecture, we may be certain, as well as of all those arts of civilisation which had previously been cultivated with success, was entirely arrested.

In this situation, therefore, it is manifest that any inquiry must be fruitless, which has for its object to ascertain in what manner, and at what period, the art became possessed of those characteristics which subsequently distinguished the different orders of building. Vitruvius, in the absence of all history or authenticated tradition, recounts a fable respecting their origin, which is utterly incredible, and in itself absurd. He says that Dorus, the son of Hellen and of the nymph Opticos, built a temple of Juno in Argos, which, by

chance, was of the Doric kind, although none of the proportions, he adds, were regulated or known at the time. The Ionian colonists on their arrival in Asia, wishing to erect a temple to Apollo-Panionius, and being ignorant of the proper method of proceeding, bethought themselves of measuring the human foot, and having discovered that it was about the sixth part of a man's height, they at once adopted this proportion in the columns of the order, which thenceforth they call Doric. At the same time, in building a temple to Diana, the style of which was to receive their own name, they wished to give a female character to the columns employed; for this purpose their height was increased to eight diameters, in order to render their appearance lighter and more slender. Bases were added instead of slippers, the volutes and ornaments of the capitals resembled the head-dresses of the time, and the manner of fluting the shaft was copied from the folds to be seen in the drapery of the matrons of those days.* It is unnecessary to pause for an instant in the refutation of these dreams. The fact is, that the different modes of building received their present appellation long after the date of their invention, whenever that event may have taken place; and was entirely owing to the continued observation and comparison of the general practice that obtained in European Greece, with that manner of building which was almost exclusively in use among the Asiatic colonies. It is impossible, therefore, to attempt to describe the origin, or to fix the era of this grand distinction, which so

* Vitruv. lib. iv. c. 1.

early prevailed in the history of the art; but it is certain that the several Dorian and Ionian states, which composed the great mass of the Greek population, disregarding the love of novelty, as well as the beauty of these respective varieties of architecture, adhered with a remarkable uniformity each to its favourite style during the lapse of several centuries. Perhaps the most ancient example of the existence of these two orders is to be found in the account which Pausanias gives of the Sicyonian treasury at Olympia; at least it is the first which is accompanied with the mention of any circumstances entitled to belief: and even this is not quite satisfactory, inasmuch as it appears that the respective orders have reference only to interior decoration. The treasury was built by Myron, the tyrant of Sicyon, in the thirty-third Olympiad, or about six hundred and fifty years before Christ. He made in it two chambers, one Doric, the other Ionic. They were worked with brass. An inscription containing the dedication to Jupiter, and specifying the weight of the metal, was to be seen in the building.* Whatever may have been the precise nature of the architectural ornaments of the Sicyonian treasury, it is probable that in their general appearance they were in conformity with the practice observed in succeeding ages.

It is not easy, in the absence of historical informa-

* Pausan. El. *post*, c. 19. The story of Acrisius and the brazen chamber of Danaë, there is little doubt, refers to a building similar to these treasuries, the interior of which was covered with brass. (Pausan. Cor. 23.) It has already been said that the indications of the plates of this metal, in the treasury of Atreus, are clearly apparent.

tion, to assign with any certainty their true dates to the buildings of antiquity, or from the peculiarity of their remains to fix the period of their construction. The remarkable similarity of manner which prevailed throughout Greece for so many ages is the chief cause of this difficulty. Unlike the gradual progress of Gothic architecture, in which the regular variation of style and ornament furnish conclusive evidence of the era of the work, the buildings of Greece generally preserved the same uniformity of design and chaste simplicity of execution; the changes which have taken place in the Grecian orders, and the differences which exist, are nearly confined to the details of the art, and in many instances are scarcely perceptible to the common observer. It is unnecessary to undertake any technical description of these minute varieties: our present purpose will be sufficiently answered by a general notice of the more conspicuous edifices of Greece, the remains of which still exist; with a reference to the writings of those authors by whom they have been most accurately measured and delineated.

As the Doric style continued, with few exceptions, to be generally adhered to by the European states of Greece until the time of the Roman conquest, the examples still remaining are numerous. One of the most ancient is to be found in the temple of Jupiter Panhellenius in Ægina. It is said by Pausanias to have been built by Æacus considerably before the Trojan war; a story wholly incredible, but which serves to prove that it had outlived all tradition of

its real origin. It is still nearly entire, and the position it occupies is very striking, being placed on the summit of the highest mountain in the island, and commanding a most beautiful prospect of the surrounding sea and land.*

The site of the temple of Jupiter at Olympia has been recently ascertained: some vestiges of this celebrated edifice are yet to be discerned on the banks of the Alpheus. The excavations performed by the inhabitants of the neighbouring villages in order to procure stone and marble for their own purposes, have in great measure laid open the ground plan of the temple, together with the lower part of some of the columns. The description of Pausanias is minutely accurate. It was built of stone, and covered with a marble roof, cut in imitation of tiles, an invention which has been thought of sufficient merit to preserve the name of its author.† The architect of the temple itself was named Libon, of whom we hear nothing elsewhere; but the age of the building may probably

* Pausan. Cor. c. 30; Ionian Antiq. vol. ii. An interesting discovery has lately been made among the ruins of this building; a large portion of the statues that formerly occupied both pediments of the temple has been recovered, by removing little more than the surface of the earth immediately beneath them. This sculpture, although probably not coeval with the temple itself, is undoubtedly of high antiquity. The style of work conclusively denotes a period at least as early as the Persian invasion; and, indeed, immediately after that event, the state of Ægina underwent such an entire change, that even if the mode of sculpture were less decisive than it really is, we could scarcely refer to any subsequent age the execution of a monument of this description. These remains, so important with a view to illustrate the progress of sculpture, are now in the royal collection of Munich.

† Pausan. El. *prior*, c. 10. Byzes of Naxos, who lived about the fortieth Olympiad.

be carried as high as six hundred years before the Christian era.*

In mentioning the earliest monuments of Grecian architecture, it is impossible to exclude the remains of a Doric temple at Corinth, consisting of five stone columns, which still support their architrave. It has been supposed that this temple was dedicated to Venus; but, in fact, no information is to be obtained respecting its origin. Whatever may have been its destination, no one can doubt, from the appearance of the ruins alone, that they formed part of a structure of the most remote antiquity.†

Although it be not more easy to fix with any precision the periods at which the Grecian temples in Sicily were erected, there are certain historical facts which may guide us in an attempt to ascertain the limits of the time within which it must have taken place, and by which we may be enabled, if not accurately to verify, at least to approximate to the dates of these different buildings.

The city of Selinus, whose stupendous ruins are the admiration of modern times, was founded by a Greek colony from Megara, six hundred and fifty years before Christ; and destroyed in the invasion of the Carthaginians, two hundred and fifty years after its foundation. From the testimony of historians it appears, that on this occasion the temples were spared, as in a second invasion their destruction is mentioned. It is

* Pausan. El. *prior*, c. 10; Strab. lib. viii. 355. For some measurements, see Antiq. of Magna Græcia.

† Stuart's Athens, vol. iii. c. 5.

clear, therefore, that they were in existence four hundred years before our era. If we consider the number and magnitude of the buildings, it will not be thought too great a concession to admit that some among them at least were begun a century before this period, or about five hundred years before the birth of Christ: it is even probable that the Greek colonists would not suffer the space of one hundred and fifty years to elapse before they employed themselves in the performance of a duty which with them seems to have been generally paramount to all others. By what means, and under what circumstances, the magnificent edifices of Selinus were raised, we are entirely ignorant; their appearance strongly indicates the existence of wealth and power, but the history of the state is nearly comprised in the bare record of its foundation and destruction.*

The Corinthian colony which established itself in Sicily is said to have taken possession of Syracuse so early as the middle of the eighth century before Christ. The details of the history of this city offer no means of determining the time at which the first temples were erected: if we reflect, however, within how short a period after the migration of the Corinthians the country became an object of the greatest desire to the Carthaginians, it does not seem improbable that its riches and splendour should have been of rapid growth. The remains of the temple of Minerva situated in Ortygia, that part of the city which was first inhabited, bear every mark of the highest antiquity.†

* Antiq. of Magna Græcia, c. 4. † *Idem*, c. 2.

The temples of Agrigentum, numerous and costly as they are,* appear to have arisen during little more than a single century. The prosperity and independence of the city commenced with Theron about four hundred and fifty years before Christ; after the battle of Himera his thoughts were entirely turned to its decoration, and the Carthaginian prisoners were made to assist by their labour in the erection of trophies to perpetuate the glory of their conquerors. The Agrigentines continued in this employment until a second and more successful invasion of the Carthaginians found them occupied in completing the temple of Jupiter Olympius, the greatest in the island, and one of the most stupendous monuments of ancient times. The capture of the city by Hamilcar in the ninety-third Olympiad prevented its completion, and according to Diodorus it continued ever afterwards in the same unfinished state.† We may perhaps be enabled to form a more lively conception of what must have been the astonishing magnitude of the whole of this structure, from the manner in which some of its parts have been described; and we are furnished with an adequate scale by which to estimate this magnitude, when we are informed that in the fluted columns, each channel, which, as my friend Mr. Knight contends, was originally invented for the purpose of holding a spear, was sufficiently capacious to contain with ease the body of a man. The wrecks of this mighty undertaking—the "*mirabilis aula gigantum*"—at first sight scarcely exhibit any traces of art;

* Antiq. of Magna Græcia, c. 3. † Diodor. lib. xiii. 82.

but rather present the appearance of huge fragments of rock in a natural state, although incrusted with vegetation, and worn by time and accident. But on a closer inspection their former character is discovered, and they satisfactorily prove that the historian in his description has been guilty of no exaggeration. Although the vestiges be few which remain of this wonderful work, the temples of Peace and of Concord still attest the ancient magnificence of Agrigentum; and as they are among the most beautiful, so they are fortunately among the most perfectly preserved of the remains of antiquity.

The history of Pæstum is barren of incident, but some important facts are authenticated, which serve in a considerable degree to fix the age of the great hypæthral temple, if not of the other buildings, which still remain within the walls. The original inhabitants of the city were dispossessed by the Sybarites, who quietly enjoyed the fruits of their conquest for more than two hundred years.* The first hostile attack seems to have been made by Dionysius; who, although he retired into Sicily without achieving his object, yet left the state so enfeebled that it shortly after fell into the hands of his Lucanian allies. This happened nearly three hundred and fifty years before the Christian era. In the course of about seventy years more it yielded to the growing power of Rome, became a municipal town of the empire, and received a Roman colony.† There can be little doubt that we ought to date the construction of the great temple

* Strab. lib. v. p. 251. † Vell. i. 14.

during the time in which the city remained under the dominion of the settlement from Sybaris. The marks of ancient Grecian art are indelible; yet, even if the Lucanians possessed skill and taste sufficient, they wanted the ease, and leisure, and security requisite for so considerable an undertaking. How far we ought to attribute the construction of the other remains at Pæstum to the Lucanians, or to the Roman colonists, it is unnecessary at present to inquire; the origin and antiquity of the hypæthral temple, at least, are clearly ascertained.* The principal buildings of Sicily and of Magna Græcia, still existing in our time, may probably be classed in the following chronological order—Syracuse, Pæstum, Selinus, Segesta, and Agrigentum. In quitting these monuments, I cannot but observe that an attempt to trace the history and progressive improvement of the Greek states of Sicily and of Italy, especially of the latter,—to inquire into the sources of their astonishing wealth and power, would be an interesting and valuable work. The materials, it is true, are widely dispersed, and perhaps are not ample, but the field is yet untrodden.

Immediately next to these in the relation of time, but in real grandeur and beauty to be classed above all the architectural efforts of ancient or modern times, come the Athenian temples. Here we may pause on the full perfection of the art; after this period nothing was added; perhaps in the course of a few years its gradual decline commenced. We have no difficulty in accurately fixing the dates of these buildings. Mnesicles

* Antiq. of Magna Græcia, c. 6.

began the Propylea in the eighty-fifth Olympiad, and it was completed at a vast expense in the short space of five years. It formed at once a most magnificent entrance to the Athenian Acropolis, and exhibited a fine specimen of the military architecture of the age. In addition to the Doric portico in front, the roof of the vestibule itself was supported within by two rows of Ionic columns, of which the bases still remain. The object of their introduction was to obtain an increased height for the roof, which the received proportions of this order permitted. Thus the summits of the Ionic capitals on which the marble beams of the roof rested, were on a level with the exterior frieze of the building, or about five feet higher than the Doric architrave.* The Parthenon was built by Ictinus a few years later, and, as well as the Propylea, during the time in which Pericles exercised unlimited control in the management of public affairs, and when his popularity had left him without a rival in Athens. They were both raised under the direction of Phidias, to whose superintendence this munificent statesman committed the execution of all his plans of taste and elegance. It would be superfluous to expatiate on the beauties of the Parthenon, which are so well known, and have been so often described. In the majestic simplicity of its general design; the grandeur of its proportions; and the exquisite taste and skill displayed in the execution of its ornamental parts, it is undoubtedly the most perfect, as well as deservedly the most celebrated production of Grecian

* Stuart's Athens, vol. ii. c. 5.

art.* The temple of Theseus may be considered as nearly coeval with the buildings of the Acropolis, or perhaps of a somewhat earlier origin. If we suppose this splendid monument of Athenian architecture to have been destined for the reception of the ashes of their national hero, its commencement ought to be placed soon after his remains were transported from Scyros to Athens, and when funeral games were instituted in his honour. The expedition of Cimon, the son of Miltiades, was forty years prior to the time in which Pericles possessed that influence which enabled him to apply the resources of the republic to these purposes of magnificence.† The striking remains of the temple of Minerva, on the promontory of Sunium, are in all probability to be attributed to the same authors; but one of the noblest efforts of the genius of Ictinus is to be seen in the temple of Apollo Epicurius in Arcadia, which although still nearly entire, has been little explored or even visited.‡ It offers many architectural peculiarities, and exhibits a greater variety in its details than we usually meet with in Grecian buildings. The front consists of six columns, but there are fifteen in each flank, contrary to the general practice, which would have prescribed thirteen. A species of buttress, six on each side, and at intervals of five feet, projected internally from the walls of the cell, and terminated in a semi-

* Stuart's Athens, vol. ii. c. 1.

† Plut. in Vit. Pericl.; Pausan. Attic. c. 17; Plut. in Vit. Cimon.; Stuart's Athens, vols. ii. iii.

‡ Pausan. Arcad. 41. For some measurements and peculiarities, see Antiq. of Magna Græcia, Appendix.

circular pilaster of the Ionic order. This peculiarity did not originate merely in the desire of ornament, but as the temple was not hypæthral, must have had for its object the more effectual support of the roof, which is said by Pausanias to have been of stone. According to the testimony of ancient writers, it surpassed in beauty all the other buildings of the Peloponnesus, with the single exception of the temple of Minerva at Tegea. It is situated on an elevated part of Mount Cotylus, three or four miles from the ruins of Phigalia, and commands one of the most enchanting prospects which it is possible to conceive ;— woods, hills, and valleys lie before it in wild confusion ; the distance is terminated by the sea, and the venerable oaks with which the temple itself is surrounded, confer an additional solemnity and grandeur on the scene.*

Sixty years after the death of Pericles, in the hundred and second Olympiad, Epaminondas having broken the power of Lacedæmon, restored the Messenians to independence, and built the city of Messene. From the extensive ruins which are still visible of the various public edifices, it does not appear that the art had yet suffered any material deterioration.† The walls of the city merit particular attention. In many parts they are still entire, and are to be traced throughout the whole extent of their ancient circuit.

* A discovery, similar to that at Ægina, has been made among the ruins of the temple of Apollo ; and in this instance there is no reason to doubt that the sculpture is coeval with the building itself. These valuable fragments have been recently added to the collection of Greek antiquities deposited in the British Museum.

† Diod. Sic. lib. xv. 66 ; Pausan. Messen. c. 27.

They present the most beautiful and perfect specimen of the military architecture of the Greeks, being fortified and adorned with numerous towers and gates. They are described by Pausanias as superior to the walls of Byzantium and Rhodes, and indeed to all that he had seen.* It is to be lamented, that no traveller or artist has as yet given us any accurate details of these most interesting remains.

In a very short time, however, the order was destined to experience a considerable change, at least if we may judge from the proportions of the portico in the island of Delos, on which is inscribed the name of Philip of Macedon.† This building could not have been erected after the hundred and tenth Olympiad, the last year of which was marked by the assassination of that prince. After this period the Doric order gradually fell into disuse, and was at first nearly superseded by the Ionic, and ultimately by the Corinthian style of architecture. The catalogue may therefore be closed with the mention of the portico of Augustus at Athens, which is, I believe, the most recent structure of this description now existing in Greece.‡ Having briefly enumerated some of the principal Doric remains, which in spite of the lapse of time, the fury of religious zeal, and the barbarism of conquerors, are still permitted to attest the magnificence and taste of the country which produced them;

* Messen. c. 31.

† Stuart's Athens, vol. iii. c. 10 ; Tournefort, t. i. lett. 7.

‡ Stuart's Athens, vol. i. c. 1. This building is conjectured to have been an entrance to the Agora.

it may not perhaps be uninteresting or useless if we attempt to inquire into the indications of their comparative antiquity, and to ascertain what are the peculiarities which may enable us to fix with some degree of probability the respective dates of buildings, not described by ancient writers, and of which the origin is entirely unknown.

A reference to the different proportions of the columns and their entablature has been supposed to afford a criterion of the antiquity of the edifice. Columns, in the earliest ages, are said to have been invariably low, and their entablatures massive; but as the art advanced, the entablature, it is affirmed, gradually diminished, and the columns became more lofty and slender. This observation may be of great service in determining the age of Grecian monuments, but although it ought always to be kept in view, we should not be justified in its universal application. Pliny says, that according to the most ancient method, the columns were only a third part of the height of the whole building.* It is likely that in the infancy of the art an appearance of this kind should have been produced by a general desire to obtain strength, and from an ignorance of the weight which might with safety be placed on a vertical shaft: but the fact is, that several remains of the highest antiquity form exceptions to these rules. There are, however, other peculiarities which may furnish material assistance in this inquiry; the most prominent of which is the depth of the capital compared with the upper diameter of

* Plin. Hist. Nat. lib. xxxvi. c. 22.

the column. When this is found to vary in the same proportion with the parts already described, the test acquires an additional confirmation. To see how nearly the chronological order I have assumed is borne out by the comparative lowness of the columns, and the depth of their capitals, let us take a number of examples from the temples to which I have alluded, and first arrange them according to the proportion of the diameter compared with their height; and then according to the depth of the capitals compared with the upper diameter of the column. The first scale shows how many times the lower diameter is contained in the height of the column, the second denotes the proportion of the depth of the capitals to the upper diameter, in decimals. It will be seen, from the relative proportions, that both scales distinguish, by a marked difference, the temples of Sicily from those of Athens and its neighbourhood.

No. I.		No. II.	
Hexastyle at Selinus	4·339	Juno at Agrigentum	·639
Minerva at Syracuse	4·410	Hexastyle at Selinus	·637
Octastyle at Selinus	4·478	Minerva at Syracuse	·636
Juno at Agrigentum	4·695	Concord at Agrigentum	·634
Concord at Agrigentum	4·807	Octastyle at Selinus	·603
Parthenon at Athens	5·566	Theseus at Athens	·508
Theseus at Athens	5·669	Parthenon at Athens	·477
Propylea at Athens	5·764	Propylea at Athens	·470
Minerva at Sunium	5·899	Minerva at Sunium	·458
Portico of Augustus	6·042	Portico of Augustus	·408

An indication of comparative antiquity is to be remarked in the projection of the architrave. In the more recent of Grecian buildings, and in Roman examples, the face of the architrave is always in the

same line with the upper part of the shaft of the column, while in the earliest remains, as well as in all those of the best ages of the art, it projects so much as nearly to coincide with a line drawn perpendicularly from the base. This projection is not always found to be augmented precisely in proportion to the antiquity of the building; but it is a feature which recurs so constantly under similar circumstances, as to deserve much notice in an inquiry respecting the age of any specimen of Doric architecture; for it is to be observed that these peculiarities do not extend to the Ionic and Corinthian styles. I am not aware of the existence of any Doric building, known to be of comparatively recent date, in which the architrave projects beyond the line of the hypotrachelium; and, on the whole, it appears to have acquired this relative position very gradually, and to have retained it probably from about the period of the Macedonian conquest.

There are other signs which mark the antiquity of columns, one of which are the three grooves sometimes found at the hypotrachelium, or necking of the shaft. Although these do not occur in every example of the earliest temples, they are never to be discerned in those of later date; and when inserted, may invariably be considered as the work of a remote age. Another proof is to be met with in the form of the guttæ, or drops, below the triglyphs. These in the most ancient specimens are frequently deep, and, excepting the temple at Pæstum, in which they are conical, of a cylindrical shape. In the more modern

instances they are comparatively little in depth, and generally trochoidal, or pulley-formed.

The Doric columns of the Greeks have always been supposed to diminish gradually in their diameter from the base to the summit of the shaft; and, correctly speaking, to form the figure of a truncated cone, from which figure, indeed, it is scarcely possible for the eye alone to detect the slightest deviation. The minute attention and laborious examination bestowed by Stuart and others on the Athenian temples, with their detailed measurements, had confirmed the accuracy of this belief; but the circumstance was remarkable, because Vitruvius not only mentions the ἔντασις, or swelling in the shafts of columns, but professes to give directions by which it is to be formed and regulated.* An able and ingenious artist has recently discovered that this entasis does really exist in the columns of the Parthenon, as well as in others of the best ages of the art in Greece.† It is found in these examples to be executed very much in the manner prescribed by Vitruvius;—as a gradual addition to the diameter of the shaft; the greatest deviation from a right line drawn from the base to the capital being at a certain point about the middle of its height; but the diameter of the whole column being at no part so great as at the base. This line, therefore, forms the portion of a circle; although in some more recent

* Vitruv. de Architect. lib. iii. c. 2.

† Mr. C. R. Cockerell, who, notwithstanding the liberality of his communications to his friends and to the lovers of the art, has too long withheld from the public his many interesting and valuable discoveries connected with Grecian architecture, but which, nevertheless, are now about being published.

instances it would appear more nearly to describe the parabolic curve. Notwithstanding this peculiarity of form has been discovered with so much difficulty, and is in fact scarcely distinguishable, there is no doubt that it was thought to be important in its general effect, and was adopted after a profound consideration of the subject. It is a proof of the highly refined and delicate perception of the Greeks; for Vitruvius explains the principle of its adoption when he states that in columns of the same proportions, the apparent diminution of the diameter is always greater according to their respective height; and that this deception of the sight is to be corrected by the science of the artist. In order, therefore, to produce the desired effect on the eye, he directs that the diameter of the upper part of the shaft, in a column fifteen feet high, should be one-sixth less than its magnitude at the base; but that in one of fifty feet the diminution should not be more than one-eighth. For the same reason, he observes that the angular columns of porticoes should have a fiftieth part added to their diameter, compared with that of the intermediate columns, because they would otherwise appear to be somewhat more slender in consequence of their being placed in a stronger and more equal light. This is what the Italian architects mean when they say, *la grand' aria mangia*. How far the variations of the entasis might lead to a conjecture respecting the age of the building, I am not prepared to state; but from the fact of some of the most ancient columns being entirely without it, while in others comparatively recent

it is much enlarged, there appears to be some probability of its affording a valuable indication of their date.

The invention of the IONIC order of architecture appears to have been coeval with that which prevailed in European Greece; and although chiefly confined at first to the Asiatic states, it became in the progress of time more generally attractive than the severe beauties of the rival style. The earliest specimen, of which any remains are to be found, is the celebrated temple of Juno at Samos; which, in the age of Herodotus, was considered as the largest and most stupendous edifice ever raised by Grecian art. This interesting ruin, although often visited, has never until recently received any architectural elucidation. From its proximity to the sea-shore a great proportion of the materials has been removed for various purposes: nevertheless the accretion of sand and earth about the site of the temple being very considerable, a judicious excavation has been repaid by the discovery of several curious particulars.* It was built about the sixtieth Olympiad, by Rhæcus and Theodorus, two natives of the island; and the style, possessing many peculiarities, is such as strongly to denote its archaic origin.† The bases of the columns are remarkable from the number and complication of their parts; the shaft is not fluted, nor is there any appearance of volutes to the capitals. Perhaps

* Ionian Antiq. vol. i. c. 5, 2nd edit.; Pococke's Travels, vol. iii. book i. ch. 7; Tournefort, t. i. lett. 10.

† Herod. lib. iii. c. 60.

the most ancient examples of this species of ornament, which subsequently became the distinguishing characteristic of the order, are to be discovered on the coins of different Greek cities, as well as in the figures delineated on earthen vases, among which an altar, or capital of this description, is not unfrequently represented.

The next building is the tomb of Theron at Agrigentum, a strange mixture of the two orders; as Ionic columns with their capitals, are surmounted by a Doric entablature. I do not know that there is any good reason to doubt the antiquity of this monument, or the truth of the appellation which it has received; although it must be confessed that some of its details a little partake of the features of a style comparatively modern. Theron died in the seventy-seventh Olympiad; and eighty years afterwards, Hannibal, in order to facilitate the approach of the Carthaginian army, ordered the tombs situated without the walls of the city to be destroyed: that of Theron being struck by lightning, was spared by the besiegers. The building in question is placed on that side of the town where alone it is accessible to a hostile force.*

The octastyle temple of Bacchus at Teos is a heap of ruins, but enough remains to attest the exquisite beauty of the ancient edifice, and fully to justify the praises lavished by Vitruvius on the architect, Hermogenes of Alabanda. This artist seems to have effected a considerable change in the taste of his age, by maintaining, with some others of equal merit, that

* Diod. Sic. lib. xi. 53; xiii. 86; Antiq. of Magna Græcia, c. 3.

the Doric order was unfit for temples. He was so deeply impressed with the truth of this notion, that he is said to have exchanged the materials which had been prepared for the construction of the Teian temple, in order that he might be enabled to complete the work in the Ionic style. This splendid edifice was probably raised soon after the Persian invasion, for Xerxes destroyed all the sacred buildings of the Ionian cities, with the exception of Ephesus;* and as Hermogenes invented the pseudo-dipteral species of temple, he could not have flourished later than the eighty-eighth Olympiad, when other buildings of this kind are known to have existed.†

It is difficult to ascertain the age of the celebrated double temple at Athens, of the Ionic order. From the earliest times a building dedicated to Minerva-Polias and to Erectheus, appears to have been an object of the highest veneration among the Athenians. It is probable that in some cases the more modern edifice may have been confounded with that by which it was preceded. The ancient temple was to a certain extent destroyed by Xerxes, and we are not informed that the present building was restored by Pericles.

* Strabo, lib. xiv. p. 910, ed. Oxon.

† Vitruv. lib. iii. c. 2; iv. c. 3; Ionian Antiq. vol. i. c. 1. From Herodotus it would appear that Darius, and not Xerxes, destroyed the Ionian temples in consequence of the revolt of Histieus.—Lib. vi. c. 32. This author makes no mention of the temple of Ephesus, but states that the temple of Juno at Samos was spared in consideration of the conduct of the Samian fleet at the battle of Lada.—Lib. vi. c. 25. Although the authority of Strabo is highly respectable, perhaps the account of Herodotus is more probable; it is certainly more consistent with the situation of the Ionian states during the reign of these princes. In either case, the date assigned to the age of Hermogenes is not materially affected.

Xenophon mentions the destruction of the old temple of Minerva by fire in the archonship of Callias, in the ninety-third Olympiad, from which period to the conclusion of the Peloponnesian war we have the time requisite for the completion of the new structure.* This agrees sufficiently with the very curious architectural inscription brought from Athens by Dr. Chandler, which describes the unfinished state of the temple, and gives the measurement of its various members;† for that this interesting document relates to the building in question, it is impossible to doubt. It must be observed, however, that this official account appears to have been taken in the archonship of Diocles, and therefore in the ninety-second Olympiad, which gives rise to some difficulty; because, according to Xenophon, the fire happened just at this period, or rather three years subsequent to it. But we can scarcely suppose that the historian alludes to the building now under our notice, and not to the older temple, as it remained after the Persian invasion; more particularly as he specifies its antiquity; whereas, at

* Hellen. lib. i. c. 6: ὁ ΠΑΛΑΙΟΣ τῆς Ἀθήνας νεὼς ἐν Ἀθήναις ἐνεπρήσθη.

† Chandler, Inscript. Antiq. Although the form of the letters, and general orthography of the inscription, are apparently much more ancient than the date above mentioned, this is to be attributed to an affectation of archaism not unfrequent among the Athenians. It is generally to be observed in the legends of their coins, and especially of their tetradrachms. Numerous inscriptions discovered in the country likewise attest the fact. A remarkable instance of this archaic language is to be seen in a marble of the Elgin collection in the British Museum, containing an epitaph on the Athenian soldiers who fell at the siege of Potidæa, and the age of which, therefore, cannot be liable to uncertainty. Dr. Chandler's inscription has recently received additional illustration from a communication by Mr. Wilkins, inserted in Walpole's "Journals of Travels in the Levant."

the commencement of Dr. Chandler's inscription, this temple is merely described as that which contained the ancient statue of the goddess. Whatever be the precise date of its erection, it will for ever be considered as the most perfect specimen of the style in which it is constructed; and being fortunately preserved nearly entire, may serve as a model for the study and imitation of all succeeding artists. The contemporary record furnishes us with the name of the architect, Philocles of Acharnæ, of whom nothing further is known; for although the edifice itself bears ample testimony to his excellence, I am not aware of his having been ever mentioned in the text of any ancient author, and I believe that we are indebted to the discovery of this valuable inscription for the bare knowledge of his existence.

The superb temple of Apollo-Didymæus, near Miletus, it is reasonable to suppose, was not built before the hundredth Olympiad. The architects, according to Vitruvius, were Peonius of Ephesus, and Daphnis of Miletus; and as the first of these is said to have finished the celebrated temple of Diana, which was destroyed on the night of the birth of Alexander, we are enabled to fix its real age with considerable accuracy. Three columns entire, and a profusion of marble fragments scattered around, are all that remain of this once magnificent edifice; but these are of a description amply sufficient to indicate its former beauty and grandeur, even if they had not been so highly extolled by the uniform voice of antiquity.*

Strab. lib. xiv. p. 634; Pausan. Ach. c. 5; Ionian Antiq. vol. i. c. 3.

No doubt is left of the origin of the temple at Priene, as the dedication of the building to Minerva-Polias by Alexander of Macedon, remains inscribed on a fragment of the walls. The architect was Pytheus, or, as he is sometimes called, Phileos: he joined with Hermogenes in his proscription of the Doric style.*

From this period to the Roman conquest we have no existing specimens of the order, at least none of which the age is in any degree certain. Little architectural information can be collected from the scattered vestiges of the Ionic temple of the Syrian goddess at Hierapolis, built by Seleucus; for, although extensive, they furnish no specimens of former beauty and magnificence.†

The grand and impressive remains of an edifice of the Ionic order are to be seen at Sardis. It has been rarely visited, and, as far as I know, never described. Five entire columns are situated on the banks of the Pactolus; and the materials of the whole building are heaped around. The diameter of the columns is not less than six feet, from which some notion may be formed of the vast dimensions of this temple. It is difficult with any accuracy to fix its age, but, as Sardis was one of the twelve cities of Asia Minor restored by Tiberius after the dreadful earthquake which happened in his reign,‡ and as the temple does not appear ever to have been entirely finished, it is probable that

* Vitruv. lib. i. c. 1; Proëm. lib. vii.

† Lucian de Syr. Dea. 30; Pococke's Travels, vol. i. lib. ii. c. 18.

‡ Strab. lib. xiii. p. 627.

we ought to refer its erection to the era of that prince. At the same time it is to be observed, that the remains bear some marks of higher antiquity: the projection of the volutes, and other peculiarities, with the beauty of the architecture, seem to indicate the work of an earlier period.

The CORINTHIAN order of architecture is comparatively of recent invention; and exhibits the highest degree of refinement to which the Greeks attained; but it is a remarkable circumstance in the history of art among this wonderful people, and it has been justly observed, that in all their progress towards magnificence and splendour, they appear not only never to have lost sight of the requisite simplicity of design, but that their improvements in this respect were more than commensurate with the increased decoration of their buildings. Thus, the Corinthian order, distinguished for the utmost richness and luxuriance of ornament in detail, is essentially the most simple in its general character; and affords the greatest facilities in its execution. A fanciful and ingenious story of its origin, related by Vitruvius, is well known; but unfortunately cannot be received as credible history: the tale is valuable, however, as affording an intimation of the date of its introduction; for Callimachus, who, according to this tradition, is said to have transferred the leaves of the acanthus from the tomb of the Corinthian virgin to the capitals of his columns, lived towards the end of the Peloponnesian war, and was the artist so much celebrated as the author of the lamp preserved constantly burning in the temple of

Minerva-Polias at Athens.* It is not altogether improbable that the characteristic ornament of the style may have been imported from Egypt: the flower of the lotus, which generally formed the decoration of the ponderous structures of that country, in some of its fantastic varieties, bears a near resemblance to the ornaments of the Corinthian capital; and, as no great degree of intercourse and traffic prevailed between Greece and Egypt until the comparatively more recent periods of their history, its late appearance in Europe is sufficiently accounted for.

If a well-known bas-relief in the Villa Albani were thought to be as ancient as the style of work would seem to indicate, we should refer the invention of the Corinthian order to a period considerably antecedent to the age of Phidias, and therefore more than a century prior to the date assigned by Vitruvius. But I think there can be little probability of the remote antiquity of this sculpture; on the contrary, it seems clear that we ought to consider it as an imitation of the archaic style, executed in an age comparatively recent, being perhaps the work of an artist who lived under the Roman empire. The draperies of the figures are exquisitely wrought, and, it must be admitted, possess all the peculiarities which characterise the art when contemporaneous with the Persian invasion; but the execution of the Corinthian temple is inferior to that of the figures, and in it we no longer observe the same accurate imitation of the early style. The capitals of the columns are not formed on a Greek

* Vitruv. lib. iv. c. 1; Pausan. Att. c. 26; Strab. lib. ix. p. 396.

model; and the entablature is rendered disproportionately low by the Roman practice of greatly diminishing the architrave.*

The concluding years of the Peloponnesian war witnessed the first examples of the style in Greece; I believe, at least, that no notice occurs in ancient writers of its prior existence. The old temple of Minerva at Tegea was burnt down in the ninety-fourth Olympiad, and was rebuilt by the famous Scopas of Paros, who produced the largest, and according to Pausanias the most beautiful, building in the Peloponnesus. It was an hypæthral edifice; the interior of the cell was adorned by two rows of Doric columns surmounted by others of the Corinthian order. The peristyle was Ionic.† This description furnishes us with the correction of a mistake, into which the learned author of a work already quoted has fallen, when he states that the practice of placing different orders one above the other is not older than the theatres and amphitheatres of the Romans.‡ It is possible, however, that we ought to reverse the order in which Pausanias speaks of the exterior and interior columns; as it is more reasonable to suppose that the peristyle was Doric, and that the less massive orders were in the interior of the building. This is in some measure confirmed by the mode actually observed in the temple

* Winkelmann, Hist. de l'Art, lib. iv. c. 6. A similar example of sculpture in relief, brought from Athens, is to be found in the collection of the British Museum, but of very inferior workmanship, and in which the evidences of an imitation of the early style are still more apparent.

† Pausan. Arcad. c. 45.

‡ Knight, Anal. Inquiry, part ii. c. 2, 46.

of Apollo near Phigalia, which is compared by Pausanias with that of Minerva at Tegea. A few shattered fragments constitute the only remains of this once magnificent structure; but as the situation is precisely ascertained, the whole plan might easily be restored, and important discoveries made, by an excavation judiciously directed.

The choragic monument of Lysicrates, well known by the appellation of the Lanthorn of Demosthenes, was built, according to the narrative inscribed on the frieze, in the hundred and eleventh Olympiad. This little edifice has suffered nothing from the many causes which have contributed to lay in ruins the noblest monuments of Athenian taste, but is still entire, and may perhaps be considered as the most exquisite and perfect specimen of the order.*

It is probable that the singular octagonal building at Athens, called the Temple of the Winds, is not of a date considerably later; it possesses some peculiarities which are not observable in more recent structures; and the formation of the roof, while it betrays an ignorance of the principle of the arch, proves, at the same time, in a remarkable manner, the skill and ingenuity of the architect. It is mentioned both by Vitruvius and Varro as the work of Andronicus Cyrrhestes, but without any information respecting his age.†

Many of the ornamented theatres, so numerous in Asia-Minor, were built, in all probability, considerably before the Roman conquest: that at Laodicea on the

* Stuart's Athens, vol. i. c. 4.

† Vitruv. lib. i. c. 6; Varro de Re Rust. lib. iii. c. 5.

Lycus, and that at Patara on the coast of Lycia, are the most remarkable among those of the Corinthian order.*

The temple of Jupiter Capitolinus at Rome, was built by Domitian out of the materials of some edifice at Athens, which had been transported from that city; and this work is worthy of mention, both because its prior destination is probably to be referred to the period of which we are treating, and on account of the remark of Plutarch, who relates that the columns were cut and repolished after their arrival at Rome, in order to produce a greater degree of elegance and lightness, but that what they obtained in these qualities they lost in grandeur and symmetrical proportion.†

The Roman conquest spread the Corinthian style throughout Greece, almost to the exclusion of the other orders. Although the buildings of this period are often more splendid and costly than those of preceding times, yet the pure taste and correct designs of the better ages of the art are generally wanting. From this remark, however, must be exempted some of the works of Hadrian, the liberal benefactor of Greece; especially if the columns at Athens, which are called by his name, and which are in reality the ruins of the temple of Jupiter Olympius, owe their origin to this emperor. These display the utmost beauty and propriety, with perhaps the greatest degree of magnificence and grandeur, ever attained to by the architectural exertions of the emperors of the Roman

* Pococke, vol. ii.; Ionian Antiq. vol. i.
† Plut. in Vit. Publicol.

world. The columns are probably the remains of that temple which, according to Vitruvius, was first projected by Pisistratus; the foundations of which were begun by the architects Antistates, Callaeschros, Antimachides, and Porinos. Afterwards Cossutius, by birth a Roman, built the temple according to the design he made by command of Antiochus Epiphanes. These facts we learn from the same author; who further informs us that the temple then built was of the Corinthian order, and of the kind termed dipteral. This account is perfectly consistent with the mode of arrangement preserved by the remaining columns, which proves it to have been a temple of that description. Whenever, or by whomsoever, finished, these columns bear the indications of a pure age of Grecian art; and indeed the remains of such a temple, with columns composed of the purest marble more than six feet and a-half in diameter, and sixty feet in height, cannot be described in any terms commensurate with the sensations excited by the view of the original.*

Although these splendid remains have acquired an appellation to which they appear to have no just claim, it may be right here to ascribe to its real author another Athenian building of the Corinthian order, which possesses all the characteristics of the age of this munificent prince, but to which Stuart has erroneously attributed a Grecian origin. From his authority it has generally been called the Poikile, or painted

* Pausan. Att. 18; Vitruv. Proem. lib. vii.; Stuart's Athens, vol. iii. c. 2.

portico; but when we observe the appearance of the whole work, the columns placed on pedestals, the foliage of the capitals, the angles of the abacus, the epistylia, composed of two fasciæ, all corresponding with Roman practice, and more particularly with the gate of Hadrian in the same city, authenticated by the inscription which it bears, there is no reason to entertain any doubt of its real date and origin. In truth Pausanias, in his description, seems clearly to allude to a striking peculiarity of this building; by which it appears to have been a kind of atrium, surrounded by a portico open to the interior, enclosing a museum, or building, for the reception of statues and pictures.*

Having thus shortly enumerated the most striking vestiges of Grecian architecture still remaining to our times, and having indicated the sources from whence an accurate knowledge of all their details may be derived; it is scarcely necessary even to allude to what has indeed been called the Tuscan style, but which, in fact, seems merely to have been a corrupt imitation of the Doric: nor is it more desirable to describe at length that barbarous mixture which prevailed in the later ages of the Roman empire, and which is known by the name of the Composite order; for if the Corinthian column, according to the fanciful theory of Vitruvius, bears some resemblance to the chaste beauty of a young maid, the characteristics of

* Pausan. Att. 18 : πεποίηνται δὲ καὶ ταῖς στοαῖς κατὰ τὰ αὐτὰ οἱ τοῖχοι. The appearance of the ruin fully explains this passage. Compare this building given by Stuart, vol. i. c. 5, with the arch of Hadrian, vol. iii. c. 3. A striking resemblance is to be found in the ornamental details of both.

the Composite have not inaptly been compared to the false attractions of meretricious decoration. The practice of the Greeks was confined to the three species which have already been mentioned; and it is observable that the most perfect example of each kind is to be found within the walls of the same city. The narrow lanes and wretched hovels which compose modern Athens, are still ennobled by the most unequivocal proofs of the glories of ancient art. The majestic grandeur of the Parthenon; the simply adorned elegance of the Erectheum; and the beautiful and splendid decoration of the choragic monument, and of the columns of Hadrian, are alike unrivalled in their several characters of varied excellence.

We ought not, in any view, however cursory, of the ornamental buildings of the Greeks, to abstain from all notice of an invention by which the representation of human figures is substituted for columns, in the support of an entablature. It is not unlikely that the practice may have been derived from an Egyptian source; as in that country columns are frequently to be seen with the representation of female heads by way of capitals; and in the Memnonium at Thebes the epistylia are supported by figures of men instead of columns.* Psammetichus built at Memphis a temple dedicated to Apis, the peristyle of which, according to Herodotus, was composed of colossal figures instead of columns, each eighteen feet high.† This must have been about the thirtieth Olympiad, or more than six

* Denon, Voy. d'Egypte, pl. 42, 61.
† Herod. lib. xi. c. 153.

hundred years before the Christian era, and, as far as I know, is the most ancient example authentically recorded. However this species of ornament may have arisen, it has been so rarely practised in Greece, that I believe the list afforded us by ancient writers may be comprised in two examples. The first is the Persian portico at Sparta, an edifice much celebrated in ancient times, and which, it is likely, was one of the earliest specimens of the style. It is now to all appearance utterly destroyed, and it is even difficult to fix the precise spot on which it stood: could this be accomplished, there is little doubt that considerable remains might speedily be discovered, for the frequency of earthquakes at Sparta makes it probable that the portico was thrown down by one of these convulsions rather than by the effect of time; and the rapid accumulation of the fine alluvial soil that forms the valley of the Eurotas, would effectually protect from external injury the interesting fragments which it covered. The building was erected shortly after the defeat of Xerxes, and the architrave was upheld by sculptured figures, habited in the loose drapery and flowing robes of the Asiatics: among them were the portraits of individuals, for those of Gobryas and Mardonius are particularly mentioned.* It is not certain how these figures were disposed, but it is probable that they formed a kind of second order, and were placed over the columns of the building. The words of Pausanias, according to the most obvious interpretation, seem to imply this—εἰσὶ δὲ ἐπὶ τῶν κιόνων

* Pausan. Lacon. 11.

Πέρσαι, λίθου λευκοῦ—. The portico may therefore have resembled an edifice at Thessalonica, still remaining in part, and described by Stuart (Athens, vol. iii. c. 9); which, indeed, ought perhaps to be added as an example, although, from an appearance of Roman origin, its date is of questionable authority.

A portico of the Pandroseum at Athens, furnishes an instance of the representation of female figures supporting an entablature, and is so beautiful as almost to justify what may perhaps be considered as a capricious deviation from established taste. The date of this elegant structure must, beyond all doubt, be deemed coeval with that of the double temple of Minerva-Polias and Pandrosus to which it is annexed.* This use of Caryatides, as they are called, although known in the best ages of the architecture of Greece, does not seem ever to have been very general, or even favoured in that country. Their appellation has been explained by Vitruvius;† but it is not probable that the story which would refer their origin to the commemoration of the captivity of the Caryan women, after the destruction of the city in consequence of its desertion of the cause of the Greeks in the Persian war, is entitled to more credit than the idle traditions to be met with in the pages of the same author, respecting the invention of the different Grecian orders. In fact, these female figures were not represented as captives, nor, as it would seem, with any symbols of subjection and disgrace, which we

* Pausan. Att. 21; Stuart's Athens, vol. ii. c. 2.

† Vitruv. lib. i. c. 1.

might naturally have expected to find had there been any foundation for this tale of their origin. On the contrary, in the architectural enumeration of the different parts of the Pandroseum, contained in the interesting inscription already mentioned, the figures forming the portico are simply styled KOPAI, or the virgins, thereby intimating that they were native Athenians; and indeed, from their appearance, there is every reason to presume that they were intended to represent the Canephoræ, who were selected for the solemnities of the Panathenæan festival from the most distinguished families of the city.

In the whole history of architecture amongst the Greeks, nothing was more calculated, at the period of its adoption, to produce a greater revolution in the practice of the art; or which, from its many advantages, has been more universally preserved and admired in modern times, than the use of the arch, constructed on scientific principles. An endeavour, therefore, briefly to ascertain the origin and date of this important invention may not be altogether misplaced. A difference of opinion has prevailed on this question; but after submitting the subject to a good deal of inquiry and reflection, it appears most probable that the era of the Macedonian conquest nearly coincides with that of the first introduction of this remarkable feature of Grecian architecture. Much has indeed been written to prove that the use of the arch was not only familiar to the earliest artists of Greece, but was even to be traced throughout the yet more ancient monuments of Egyptian labour. In

adducing this proof, the most obvious mistakes and the grossest blunders have been committed: drawings and engravings of the actual remains of the antiquities of these countries have been referred to; and the wretched cabins of the Arabs, and the towers and steeples of the modern Greeks, have been gravely represented by some, as forming part of the ancient temples, among which these fabrics are frequently to be discovered. The selection of those travellers whose accounts are to be received has not always been judicious; to the authority of such writers as Paul Lucas, and some others of his nation, no particle of credit is due: his truth and accuracy are declared by a recent traveller, his countryman, to be only worthy of comparison with the Arabian Nights' Entertainments.* In like manner, the assertions contained in works of late date, composed under the Roman empire, have been implicitly adopted respecting the nature of buildings which either never had any existence at all, or which had been utterly destroyed long previous to the times in which their pretended descriptions were published. The tales of the hanging gardens of Babylon, of the labyrinths of Crete, of Lemnos, and of Porsenna, are equally fallacious and incredible. Strabo and Pliny, who undertake to detail the wonders of these edifices, had no other object in view than to convey the notion of vast and stupendous works; the display of arches and of domes was best calculated in their own day to produce this effect, and accordingly they did not hesitate abundantly to employ these

* Chateaubriand, Itinéraire, pref.

forms in the account of buildings which no one had ever seen.*

In considering this question, it is necessary to keep in mind the difference between an arch constructed of wedge-formed stones whose joints, if prolonged, would meet in a centre; and one produced merely by the gradual projection of horizontal courses of stones until they meet: of this inartificial description I believe examples may be found in all ages; but as abundant materials and massive proportions are required in its formation, little was gained by the adoption of this method, and it is therefore rarely seen. The galleries in the walls of Tiryns, as well as the section of the treasury of Atreus, afford us examples of the most remote antiquity; and a friend, whose general accuracy and great practical knowledge are universally admitted, has communicated to me a similar instance of what we may call a Cyclopian arch, existing in Italy.† It is preserved quite entire, and has formed a gateway in the wall of the ancient city of Arpinum. This arch is somewhat more elaborately constructed, but possesses the same character, and is probably not much more recent than the Tirynthian galleries. But it is not only in Greece and in Italy that we find arches of this description: for as if they were the natural result of the endeavours of a half

* Strab. lib. xvi.; Plin. lib. xxxvi. c. 13. Herodotus, who not only saw, but minutely described, the Egyptian labyrinth, the model of all works of this kind, sufficiently proves that it was built without any arch. —Lib. ii. c. 148.

† Sir R. Smirke, who made a drawing on the spot of this interesting monument.

civilised people to obtain height and strength in the interior of their buildings, we meet with them equally amongst nations the farthest separated from each other,—in Egypt, and in India, in the rude works of our British ancestors,* and even in the monuments of the original inhabitants of the new world.† With respect to the arch scientifically constructed, we may safely assert that no specimen is to be met with before the age of Alexander, either in the existing remains of art in Greece, or described in the works of those writers who flourished previously to that period. The words ΑΨΙΣ, ΨΑΛΙΣ, ΘΟΛΟΣ, which unquestionably in later times almost invariably implied arch, or dome, are used in a different sense by the more ancient authors. Thus in Homer ἄψις is simply the connexion of threads (ἅπτω, necto,) and there, signifies the meshes of a net.‡ Herodotus in relating the method by which the horses and their riders, sacrificed at the funerals of the Scythian kings, were suspended in the air; informs us that two curved pieces of wood passed under the belly of the dead horse, and were fixed at each end to the top of a pole erected in the ground for that purpose. These pieces of wood he calls ἄψιδες.§ Similar to this is the meaning of the word as employed by Euripides to denote the wheel of a chariot, or more properly its circumference.‖

* King, Muniment. Antiq. vol. i. chap. vi. ; Archæolog. vol. xix. part 1.
† Humboldt, Relat. Historique, 1re ptie, p. 29.
‡ Il. v. 404. § Herod. lib. iv. c. 72.
‖ Hippol. v. 1247 :

Ἀψίδα πέτρῳ προσβαλὼν ὀχήματος.

See also Aristoph. Thesmophor. v. 58, where although the word is employed

ΨΑΛΙΣ in the recent ages of Greek literature was synonymous with ἄψις; but the word is rarely to be met with in the works of the earlier writers. In a fragment of Sophocles,* and by Plato,† it is used in mentioning a subterranean edifice. What it anciently signified as a term in building is very uncertain, but if we might conjecture from its primitive meaning, forfex, shears or scissars, it is difficult to imagine how anything descriptive of this instrument should enter into the formation of an arch.

ΘΟΛΟΣ, which is interpreted dome, or cupola, implied before the Macedonian conquest merely a circular edifice, without any reference to the nature of the roof: this was so far from being necessarily arched, that there is, on the contrary, sufficient reason to believe it was in general of a different form, and was conical, or terminating in a point. It is thus explained by the old lexicographers.‡ We may observe also that the derivative from this word, employed to express the pointed caps, or bonnets worn by the Greeks, serves to confirm the accuracy of this interpretation.§ The tholus mentioned by Homer, it is

metaphorically, it appears to have much the same signification. The passage is somewhat obscure and difficult.

* Lacænæ, quoted by Pollux, lib. ix.

† De Legibus, lib. xii. There can be little doubt that the true reading is ψαλίδα, and not ἀψίδα. The passage is thus cited by Suidas (in ψαλ). See also Pollux, lib. ix. 49, ed. Hemst., where in the notes other reasons are produced. I learn from Mr. Gaisford that ψαλίδα is the reading preserved in a MS. of the Leyden library, which formerly belonged to Isaac Vossius. Ψαλίδα is likewise the reading of the scholiast as published by Ruhnkenius.

‡ Suid. in loc. Hesych.: οἶκος εἰς ὀξυ ἀπολήγουσαν ἔχων τὴν στέγην κατεσκευασμένος.

§ Vid. Stephan. Θολία, pileus in acutum desinens.

clear, could not have been vaulted, for the roof was supported by a large column in the centre.* At Athens and Epidaurus there were buildings bearing this appellation; the first was an ancient edifice, in which the Prytanes were accustomed to meet; the other was the work of the celebrated Polycletus: they are both described by Pausanias, but in neither does he intimate the existence of any thing like an arch.†

From what has been said, it is evident that we ought to hesitate in giving generally to these words the interpretation of late writers; and where they occur in more ancient works, all notion of a scientific arch is to be withheld, unless the term itself be accompanied by such circumstances as are sufficient to indicate the principle of its construction. It has already been asserted that no such indication is to be found in any author previous to the hundred and twelfth Olympiad; and when, in addition to this fact, among the various architectural remains in Greece, we discover no vestige of such a mode of building anterior to the same date, the question seems to be nearly determined.

I observe that M. Visconti, in a recent publication, asserts that the arch was known to the Greeks in the age of Alexander.‡ Without meaning to deny this proposition, I cannot but remark that no conclusive arguments are adduced by him to prove the fact. M. Visconti says that Pompey imitated at Rome the

* Od. xxii. 456.
† Pausan. Att. c. 5; Cor. c. 27.
‡ Visconti, Mém. sur les Sculptures d'Athènes.

theatre of Mytilene, and that his, in its turn, served as the model for that of Marcellus; in which, as we know there were arcades, we are therefore to presume there were arches in that of Mytilene. Now in the first place, it is not said in what the imitation by Pompey precisely consisted: it is true that he brought the form and plan with him to Rome; but as I think we are informed that this great captain was the first of the Romans who ever employed stone in buildings of this nature, they having previously been constructed of wood, it is obvious that there might have been much to imitate, exclusive of ornamental details. But even supposing the theatre of Pompey to have been accurately and minutely copied from that of Mytilene, it does by no means necessarily follow that arches were to be found in either of them; for nothing can be more vague and general than the terms in which Dion Cassius informs us of the manner in which Julius Cæsar began to build the theatre of Marcellus, from the remains of which only we are enabled to form any conjecture respecting the other two already mentioned.* From this passage of Dion it is not clear whether we are to understand that Cæsar merely followed the example of Pompey in building a theatre, without stating anything with reference to a specific plan, which, as it was but ten years subsequent, seems not improbable; or whether we are to interpret Cæsar's undertaking to be in imitation of the particular building erected by his great rival. Should the latter sense

* Dion. Cass. lib. xliii. c. 49 : *Θέατρον τέ τι κατὰ τὸν Πομπήϊον οἰκοδομῆσαι ἐθελήσας.*

be correct, it follows that as the theatre of Marcellus was the second of stone which had ever been seen in Rome, we must still admit that the employment of a similar material would alone be quite sufficient to justify the general expression of the historian. But in addition to this, it is to be remarked, that we have no knowledge of the date of the Mytilenæan theatre itself, the supposed model of those at Rome. A period of near three hundred years had elapsed from the age of Alexander to that of Pompey, affording a space of time amply sufficient for the origin of the building long subsequent to the death of the Macedonian conqueror; and, indeed, I have little doubt that the greater part of those theatres, the numerous remains of which still adorn the coasts of Asia Minor, were erected during this interval.

The only additional argument brought forward by M. Visconti to prove the existence of arches in the age of Alexander, is entitled to still less weight than that which has been just mentioned. He states, that according to Plutarch, Cleomenes at the siege of Argos penetrated into the aqueducts under Aspis, and by this means entered the city.* Now, it is to be observed that these aqueducts were nothing more than perforations of the Phoronæan hill, or Aspis, as it was usually called, from its resemblance to the form of a shield; and it is impossible therefore that they should give us any just notion of the peculiar species of construction in question. Their remains, such as described, are

* Plut. in Cleom. c. 21 : *ἐκχόψας δὲ τὰς ὑπὸ τὴν Ἀσπίδα ψαλίδας, ἀνέβη καὶ συνέμιξε τοῖς ἔνδον κ. τ. λ.*

distinctly visible at this day. But even had we been unable to explain the precise nature of these aqueducts, it would be unreasonable to admit that the term alone, unaccompanied with any descriptive particulars, ought to be considered as sufficient to authenticate a fact respecting which so much doubt exists; especially when the term itself has anciently received a great variety of significations, and many of them quite incompatible with the hypothesis of M. Visconti.

There is, indeed, a passage in Aristotle* that would, if it were genuine, compel us to assign a period for this invention, at least as remote as the reign of this prince; for the principle of the arch being held together by the key-stone is expressly mentioned, and is made the subject of comparison with the government of the universe by the Supreme Being. It is sufficient, however, to state that the passage occurs in the treatise "De Mundo." Concerning the genuineness of this work, in the ages immediately succeeding the restoration of literature, there was much difference of opinion; but the dispute is now set at rest to the satisfaction of every Greek scholar, of which I will evince my conviction by abstaining here from the production of any one of those proofs by which the composition might be shown to be spurious.

It is difficult to give a conclusive reason for adopting the age of Alexander the Great in preference to a still later period, as that which gave birth to the invention of the arch; on the whole, however, it is not improbable that it may have originated about this

* Aristot. περ. Κοσμου, c. 6.

time: the advances of science had been rapid and extensive, and a new world was, by his conquests, opened to Grecian inquiry and research. It is to the East that we are to look for the first authors of this style; for, in truth, the scientific principle of the arch was likely to have remained long unknown in Greece, where stone and marble were found in such abundance. When height was indispensable, it was obtained from the earliest times in that country, by the gradual approximation of stones placed horizontally each over the other; but as this method, from the ponderous masses necessarily employed, was attended with great labour and expense, it was, as already stated, rarely practised. In districts in which large blocks of stone were with difficulty procured, as in many of the fertile and extensive plains of the East, the invention of the arch would probably arise from the mere necessity of the case, in the use of such materials as were to be obtained; and in such situations, was of the highest value. We cannot however wonder that a discovery, so powerfully recommended by its character of utility, convenience, and cheapness, should when once known, have been speedily adopted throughout the civilised world. How far these advantages may have contributed to the employment of the arch in situations to which it was ill suited, and indeed inapplicable, it is not necessary to inquire—perhaps we may doubt whether a very material addition has been made to the ornamental architecture of the Greeks by its introduction: few will deny that its abuse has perpetuated a greater corruption of style, and a more

truly vitiated taste, than would probably have been witnessed had it never existed.

In addition to the remarks which have already been made on the temples of the Greeks, it is not my intention to pursue and to note the gradual changes and variations in the different species of their ornamental architecture—their theatres—their forums—their public baths and private dwellings; although each of these topics affords matter for much curious investigation. Neither is it my present purpose more particularly to trace the decline, and final extinction, of that taste and beauty which, for a time, appeared to be inherent in the works of this people. It may be observed, in general, that subsequent to the Macedonian conquest, the progress of mechanical science in Greece must undoubtedly have afforded considerable facilities in the execution of the art, and have largely extended the powers of the artist; but it does not appear that architecture acquired new beauties or arrived at greater perfection. It may even perhaps be thought that the fabrics of this era aimed more at the display of royal magnificence than would have been consistent with the chaste severity of republican taste. During the same period, a change somewhat analogous, and arising probably from causes not very dissimilar, was gradually effected in the higher productions of Greek intellect and genius: their orators became mere rhetoricians, and even their poets preferred too often the charms of skilful versification, and the tricks of art, to the energetic simplicity of nature and of truth. The most brilliant epoch of Grecian

architecture, and in which we are to look for perfection in the art, was comprised in the short space of about two hundred years, including the respective ages both of Pericles and of Alexander, from whose death its gradual decline may perhaps be said to have commenced. But under the subsequent dominion of Roman emperors its deterioration was still more apparent; for although the sovereigns of the world astonished mankind by the prodigious dimensions and gorgeous splendour of their architectural undertakings, yet when compared with the purity of Grecian design, the evidences of barbarism are perceptible in most of their works. This corruption of style, unattended however with any diminution of cost and magnificence in the buildings themselves, rapidly increased, until all vestiges of beauty and propriety were lost in the long period of darkness which followed the destruction of the empire.

At the revival of the art in Italy, during the fifteenth and sixteenth centuries, the great architects who adorned that country naturally looked for instruction to the monuments with which they were surrounded,—the wrecks and fragments of imperial Rome. These were not only successfully imitated, but were sometimes even surpassed by the Italian artists; for Bramante and Michel Angelo, Palladio and Bernini designed and executed works which, although of unequal merit, may perhaps fairly challenge a comparison with the boasted productions of the Augustan age. It is not, however, to be expected that their compositions should be free from those im-

perfections which are to be found in the models from whence they derived their knowledge, and on which their taste was formed. The precious remains of Grecian art were long neglected, and the most beautiful were, in truth, nearly inaccessible to the christian world. It is almost in our own time that obstacles, formerly insurmountable, have been first vanquished; and that the treasures of art, still unfortunately in the custody of ignorance and barbarism, have not only been visited, but have been accurately measured and delineated. Henceforth, therefore, these exquisite remains should form the chief study of the architect who aspires to permanent reputation; other modes are transitory and uncertain, but the essential qualities of Grecian excellence, as they are founded on reason, and are consistent with fitness and propriety, will ever continue to deserve his first care. These models should be imitated however,—not with the timid and servile hand of a copyist; but their beauties should be transferred to our soil, preserving, at the same time, a due regard to the changes of customs and manners, to the difference of our climate, and to the condition of modern society. In this case, it would not be so much the details of the edifice itself, however perfect, which ought to engross the attention of the artist, but he should strive rather to possess himself of the spirit and genius by which it was originally planned and directed; and to acquire those just principles of taste, which are capable of general application. The words of a competent judge, in describing the practice of the Greeks, will give addi-

tional weight to these opinions. Omnia enim certa proprietate, et à veris naturæ deductis moribus, traduxerunt in operum perfectiones: et ea probaverunt, quorum explicationes in disputationibus rationem possunt habere veritatis.*

* Vitruv. lib. iv. c. 2.

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